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TIMBER MANAGEMENT PLAN

PAYETTE NATIONAL FOREST

INTERMOUNTAIN REGION
USDA-FOREST SERVICE

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TIMBER MANAGEMENT PLAN

PAYETTE NATIONAL FOREST

INTERMOUNTAIN REGION

Submitted By W. B. Zeedt — Forest Supervisor — 2/3/76 — Date

Approved By Vern Hamre — Regional Forester — 2/13/76 — Date

TIMBER MANAGEMENT PLAN

PAYETTE NATIONAL FOREST
IDAHO

Intermountain Region

Plan Period 7/1/75 to 6/30/85

INTRODUCTION

The objective of this plan is to provide the timber management program direction for the Payette National Forest. It is based on Ranger District Multiple Use Plans and a timber inventory conducted in 1965 and revised in 1972.

The Ranger District Multiple Use Plans were revised in 1971 and 1972. Land allocation in these plans was primarily determined by land capability inventories based on procedures developed by Star 1/ and on management decisions providing coordination of the various land uses. Each District was subdivided into zones and management units, with a written set of decisions which control the management and determines priorities of use.

The 1965 timber inventory area data was stratified by each of the mapped zones and management units. This data is included in the appendix of this plan. The effect of the multiple use plan management decisions on timber yield was determined for each zone and unit and an appropriate yield factor assigned. These factors are predictions of yield in relation to the yield from the standard component which has no decisions which would reduce its timber yield. Thus, the yield factor for the zones in the standard component is 1.0 (full yield, no adjustment); and the yield factors for the special and marginal components vary from 0 (no anticipated yield) to 0.9 (90% of standard).

The purpose of the adjustments is to incorporate the expected reduced potential yield resulting from multiple use plan decisions which limit the effectiveness of on-the-ground timber management. This was done by calculating the potential yield based on "standard acre equivalents" rather than the full productive forest land area in the special and marginal components. Standard acre equivalents are determined by multiplying the management unit productive forest area by the appropriate yield factor. For example, management unit C-1 on the Council District includes 822 acres of productive forest land; however, the yield adjustment for this zone is 0.2. Therefore, the area entered in the potential yield calculation is 164 acres (822 x 0.2). The overall effect of the adjustments is a reduction in potential yield in the special and marginal components of 55 percent. A comparison of "standard acre equivalents" and total productive forest land area shows an effective reduction of 216.7 thousand acres for the purpose of potential yield calculation:

1/ Star, Warren A., 1955. Evaluating and Mapping Mountain Land Features for Forest Management Purposes, Washington Ag. Exp. Sta. Circular No. 271, Pullman, Washington.

Component	"Standard Acre Equivalents" (Area 1000 Acres)	Productive Forest Land Area (Area 1000 Acres)
Special	97.0	299.7
Marginal	79.8	93.8
Totals	176.8	393.5

Stratification by standard timber management classification and the yield adjustment for each multiple use plan zone and management unit is shown in the appendix. These plans, with maps of the zones and units, are on file at Ranger District headquarters and in the office of the Payette National Forest Supervisor.

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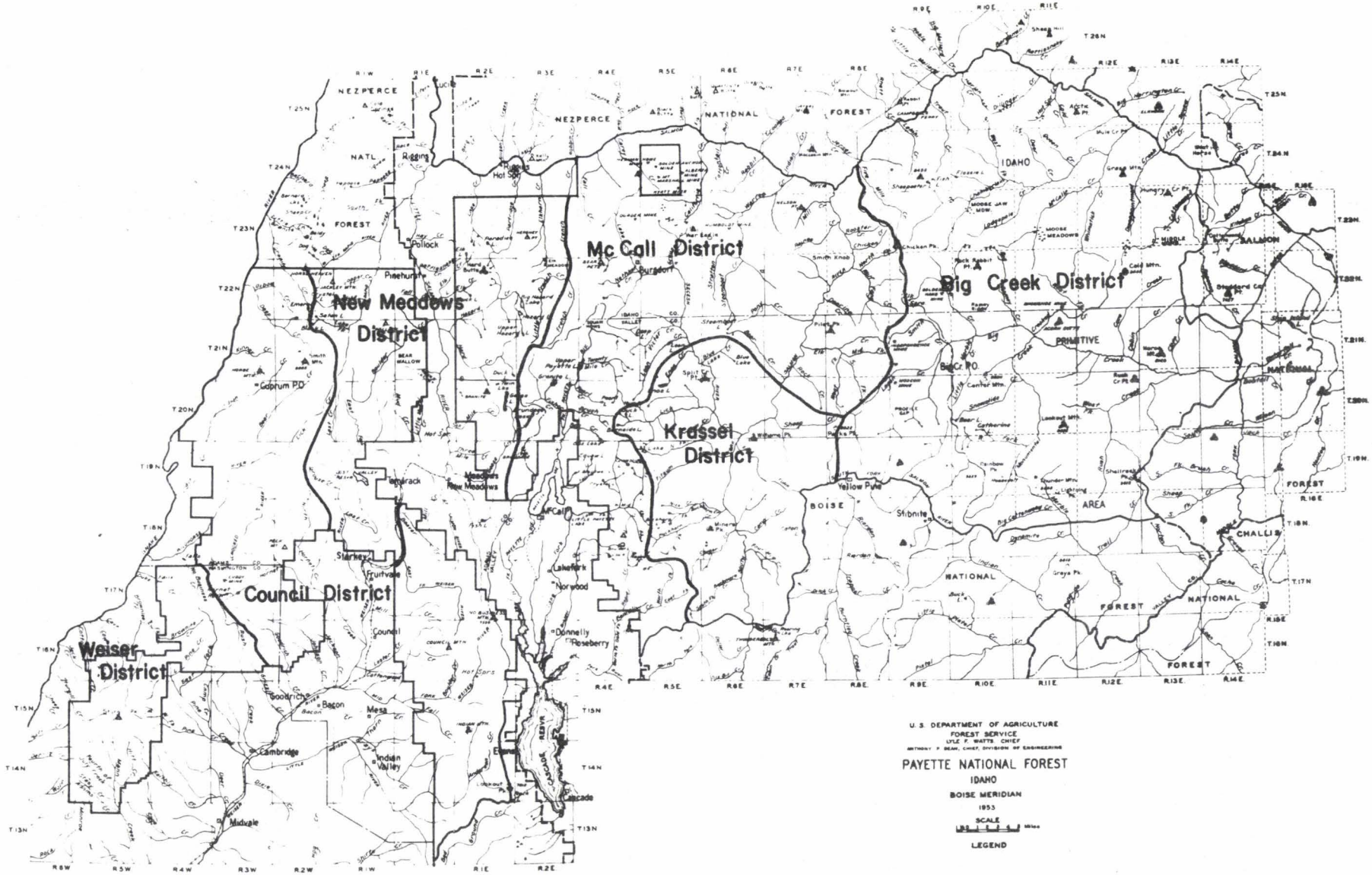

New Meadows District
Mc Call District
Big Creek District
Krassel District
Council District
Weiser District
U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
LYLE F. WATTS, CHIEF
PAYETTE NATIONAL FOREST
IDAHO
BOISE MERIDIAN
1953
SCALE
LEGEND

1.0 PLAN SUMMARY

The Payette National Forest

*The Payette National Forest is located in West Central Idaho between the Middle Fork of the Salmon and Snake Rivers.

*Net National Forest area is 2,307,355 acres. (There are 2,314,137 acres of National Forest land administered by the Payette N.F.)

Forest Area

*Commercial, unreserved, and undeferred forest covers 804 thousand acres or 35 percent of the net National Forest area.

*Eighty-three percent of the commercial forest area is in sawtimber stands.

*Douglas-fir and ponderosa pine make up the largest timber types with 301 thousand and 219 thousand acres of productive, unreserved forest land.

Timber Volumes

*Commercial forest land supports a sawtimber volume of 9,887 million board feet.

*Douglas-fir is the leading species with 2,987 million board feet; followed by ponderosa pine, 2,357 million board feet; and Engelmann spruce, 1,679 million board feet.

*Productive deferred volume is 2,546 million board feet.

*Productive reserved volume is 5,377 million board feet.

Stand Conditions

*Thirty-five percent of all stands are overmature, 18 percent of the growth of sawtimber trees is offset by sawtimber trees that die.

*Sawtimber mortality during the past 10 years amounted to approximately one-half of the sawtimber harvest.

*Insects and disease cause 56 percent of the mortality.

*About 25 percent of all sawtimber stands are high risk.

*The age class distribution is in the older age classes; only 38 percent of the productive forest area is in the 1 to 100-year age group.

Regulation

*The total potential yield is 98.1 million board feet annually.

*By component, the potential yield is: Standard, 70.2 million board feet; Special, 16.9 million board feet; and Marginal, 11.0 million board feet.

TABLE 1. TOTAL NET AND PRODUCTIVE LAND AREA BY DISTRICT
(Area Acres)

District	Net 1/ National Forest Area	Productive Forest Land Area							
		Commercial Forest Land Area					Deferred	Reserved	Total Productive
		Standard	Special	Marginal	Unreg.	Total Comm.			
Council	333,787	121,267	51,484	1,690	268	174,709	18,407	---	193,116
Weiser	113,226	33,235	16,008	3,478	175	52,896	---	---	52,896
New Meadows	285,839	82,147	30,321	10,824	95	123,387	61,514	---	184,901
McCall	510,981	151,596	116,661	11,111	1,631	280,999	41,071	---	322,070
Big Creek	823,266	---	42,627	4,187	110	46,924	23,863	552,235	623,022
Krassel	247,038	19,737	42,625	62,506	297	125,165	16,161	---	141,326
Totals	2,314,137	407,982	299,726	93,796	2,576	804,080	161,016	552,235	1,517,331

1/ Includes portions of the Boise and Salmon National Forests administered by the Payette National Forest.

2.0 POTENTIAL YIELD

The potential yield for the plan period is the maximum harvest that could be planned to achieve the optimum perpetual sustained-yield harvesting level attainable with intensive forestry on regulated areas considering the productivity of the land, conventional harvesting technology, standard silvicultural treatments, and interrelationship with other resource uses and the environment.

Volumes were calculated (see appendix) and the areas estimated in the potential yield statement. The areas shown for the "regeneration" component are the average annual areas to be cut in the mature and overmature age class (141+).

The potential yield is divided into three regulated components:

1. Standard. The regulated harvest that: (1) can and should be produced through intensive management on standard acres of the Forest; and (2) has a reasonable probability of demand and/or funding under the accessibility and economic conditions projected for the plan period; and (3) can be harvested with adequate protection of the Forest resources under standard provisions of the timber sale contract including usual utilization.

2. Special. The regulated harvest on special areas that can and should receive special attention because of landscape, environmental, soil or other key-use considerations. The potential yield for this component is the harvest that can be carried out without violating the direction given in multiple use guides and Ranger District plans.

3. Marginal. The regulated harvest from marginal areas that is silviculturally desirable to meet management objectives, but requires special funding or has a low probability of being acceptable to prospective purchasers during the plan period.

Appendix Tables 11 through 16 show the productive land area for the above three components for each multiple use zone and management unit. Base maps showing their location and written plans outlining management objectives and decisions are on file at the Forest Supervisor's headquarters and at each Ranger District headquarters.

The three regulated components are further subdivided into one or more of the following non-interchangeable silvicultural practices:

1. Regeneration. Harvest of the mature and overmature stands and replacement with a new crop; includes patch,

strip, stand, shelterwood-seed tree and selection harvest methods. This component was calculated by the ARVOL method (see appendix for calculations).

2. Salvage. Harvest of scattered dead and dying timber. This component was estimated from inventoried salvageable timber volumes adjusted for accessibility.

3. Intermediate. Includes the estimated sawtimber yield from immature stand tending; for example, commercial thinning to concentrate growth on an optimum number of trees per acre.

4. Reforestation Backlog. This is the yield to be gained from reforestation of deforested productive land. The rate of increase is the yield per acre per year for the standard component for the entire rotation.

5. TSI Backlog. This is the yield increase that can be earned from timber stand improvement activities in immature stands.

2.1 Average Annual Potential Yield

The potential yield for the pine, fir, spruce working group and the lodgepole pine working group is shown for the ten-year plan period. This total potential yield is based on the following annual average volume:

	Pine, Fir, Spruce Working Group	Lodgepole Pine Working Group	Total
Standard	62.8 MMBF	7.4 MMBF	70.2 MMBF
Special	15.7 MMBF	1.2 MMBF	16.9 MMBF
Marginal	10.6 MMBF	0.4 MMBF	11.0 MMBF

The average annual potential yield for both working groups for the standard and special components is 87.1 MMBF.

2.2 Unconstrained Production Potential

The potential yield in Section 2.1 does not include the production potential for deferred areas or the area reduction resulting from the adjustments described in Section 10.22. The area not included is 377.8 thousand acres, and the estimated annual production potential is 57.4 million board feet. This is the annual production available if all constraints which alter normal potential yields on productive forest land were removed.

USDA - Forest Service

2.11 Pine-Fir-Spruce Working Group

POTENTIAL YIELD OR PROGRAMED ALLOWABLE HARVEST STATEMENT

(Instructions : FSM 2491)

[X] Potential Yield [ ] Programed Allowable Harvest

REGION NO	FOREST NO	SUB UNIT NO	STATE NO	CLASS 1 OR 2	WORK GROUP
04	12	—	16	1	01
(1-2)	(3-4)	(5-6)	(7-8)	(9)	(10-11)

		LAND CLASS CODE	ACTIVITY CODE	AREA M ACRES	SAWTIMBER M CUNITS	SAWTIMBER MMBF	PRODUCTS M CUNITS	PRODUCTS M CORDS
		(12-13)	(14-16)	(17-23)	(24-30)	(31-37)	(38-44)	(45-51)
STANDARD COMPONENT	PATCH, STRIP, STAND	50	110	30.5	1106.6	522.0		
	SHELTERWOOD-SEED TREE							
	Seed Cuts	50	130	1.0	30.7	14.5		
	Removals (overstory)	50	140	3.1	92.2	43.5		
	SELECTION	50	150					
	INTERMEDIATE	50	200	5.7	48.8	23.0		
	Salvage	5_	230	—	53.0	25.0		
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
	STANDARD TOTAL	50		40.3	1331.3	628.0		
SPECIAL	Patch, Strip, Stand	60	110	3.5	122.9	58.0		
	Special	60	300	4.6	162.8	76.8		
	Removals	60	140	0.6	21.6	10.2		
	Salvage	60	230	—	25.4	12.0		
		6_						
		6_						
	SPECIAL TOTAL	60		8.7	332.7	157.0		
MARGINAL	REFORESTATION BACKLOG[1]	71		3.3	—	—		
	TSI BACKLOG [2]	72		1.3	—	—		
	ACCESS ROAD	73	110	6.3	224.3	105.8		
	Salvage 3/	7_	230	356.7	—	—		
		7_						
		7_						
		7_						
	MARGINAL TOTAL	70		367.6	224.3	105.8		
UNREGULATED TOTAL		80						
Potential or Programed TOTAL		99		416.6	1888.3	890.8		

EFFECTIVE PERIOD FY BASIS	
START (56-59)	END (60-63)
1976	1985

REMARKS: [1] Increases are earned at the rate of 160 (64-66) (1. Bd. ft. / XXCuXX) * per acre per year for each acre reforested since plan revision and will be harvested from standard areas.

[2] Increases are earned at the rate of 051 (68-70) (1. Bd. ft. / XXCuXX) * for each acre accomplished previous fiscal year and will be harvested from standard areas.

3/ Salvage volumes on currently inaccessible lands average approximately 299 board feet per acre in the standard component, 1,022 board feet per acre in the special component, and 1,868 board feet per acre in the marginal component. These salvage yields will become available, in addition to the present standard and special salvage yields, as the acres on which they are located are made accessible through increased funding for access.

*Cross out cu. ft. or Bd. ft.

APPROVED BY:	TITLE:	DATE:
Vern Hamre	Regional Forester	2/13/76

GPO 865-176

2400-26b (5/73)

USDA - Forest Service

2.12 Lodgepole Pine Working Group
POTENTIAL YIELD OR PROGRAMED ALLOWABLE HARVEST STATEMENT

(Instructions : FSM 2491)

[X] Potential Yield [ ] Programed Allowable Harvest

REGION NO	FOREST NO	SUB UNIT NO	STATE NO	CLASS 1 OR 2	WORK GROUP
04	12	—	16	1	61
(1-2)	(3-4)	(5-6)	(7-8)	(9)	(10-11)

		LAND CLASS CODE	ACTIVITY CODE	AREA M ACRES	SAWTIMBER M CUNITS	SAWTIMBER MMBF	PRODUCTS M CUNITS	PRODUCTS M CORDS
		12-13	14-16	17-23	24-30	31-37	38-44	45-51
STANDARD COMPONENT	PATCH, STRIP, STAND	50	110	62	189.9	74.2	3/ 1.9	3/ 21.2
	SHELTERWOOD-SEED TREE							
	Seed Cuts	50	130	------	------	------	------	------
	Removels (overstory)	50	140	------	------	------	------	------
	SELECTION	50	150	------	------	------	------	------
	INTERMEDIATE	50	200	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
		5_	---	------	------	------	------	------
	STANDARD TOTAL	50		62	189.9	74.2	1.9	21.2
SPECIAL	Special	60	300	1.4	31.0	12.1	—	—
		6_	---	------	------	------	------	------
		6_	---	------	------	------	------	------
		6_	---	------	------	------	------	------
		6_	---	------	------	------	------	------
		6_	---	------	------	------	------	------
	SPECIAL TOTAL	60		1.4	31.0	12.1	------	------
MARGINAL	REFORESTATION BACKLOG[1]	71		------	------	------	------	------
	TSI BACKLOG [2]	72		16.1	—	—	—	—
	ACCESS ROAD	73	110	0.5	1.2	4.4	—	—
	Salvage 4/	7_	230	38.2	—	—	—	—
		7_	---	------	------	------	------	------
		7_	---	------	------	------	------	------
		7_	---	------	------	------	------	------
	MARGINAL TOTAL	70		54.8	1.2	4.4	—	—
UNREGULATED TOTAL		80		------	------	------	------	------
Potential or Programed TOTAL		99		62.4	232.1	90.7	1.9	21.2

EFFECTIVE PERIOD FY BASIS	
START (56-59)	END (60-63)
1976	1985

REMARKS: [1] Increases are earned at the rate of — (64-66) (1. Bd. ft. / 2. Cu. ft.) * per acre per year for each acre reforested since plan revision and will be harvested from standard areas.

[2] Increases are earned at the rate of 051 (68-70) (1. Bd. ft. / XXXXXX) * for each acre accomplished previous fiscal year and will be harvested from standard areas.

3/ Products on standard regeneration acres, 4 to 8 inches DBH (328.4 cu. ft. per acre).

4/ See page 64. Salvage yields from the lodgepole pine working group average approximately 473 board feet per acre. These yields will become available as such material becomes marketable and/or as the acres on which they are located are made available through increased funding for access.

* Cross out cu. ft. or Bd. ft.

APPROVED BY:	TITLE:	DATE:
Vern Hamre	Regional Forester	2/13/76

GPO 865-176

2400-26b (5/73)

3.0 PROGRAMED ALLOWABLE HARVEST

The programed allowable harvest is that part of the potential yield that is scheduled for a specific year. It is based on current demand, funding, silvicultural practices, and multiple use considerations. Annually, a programed allowable harvest statement for the ensuing fiscal year will be prepared and submitted to the Regional Forester. It will reflect the expected level of financing and will show the scheduled mix of yield components.

The programed allowable harvest will be the cutting plan and commitment shown in reports, such as the Timber Business Report, Program Attainment Report, and the Timber Sale Accomplishment Report.

The full potential yields of the standard and special components have not been programed for sale during this plan period nor has any of the potential yield of the marginal component been programed. The programed harvest was reduced in order to reflect unique limitations affecting two major areas of the Forest. Following are explanations of the programing limitations:

New Meadows Ranger District. For over 10 years, harvests were programed at a rate of 37 percent above the calculated quotas in the Timber Management Plan for the "Boulder" portion of this District. This was done to make up the volume which was not being harvested on the Krassel District due to a "moratorium" and until an adjustment was made to compensate for this in the timber management plan. Much of this harvest was clearcutting necessitated by stand conditions. These clearcuts have been regenerated, but most are in the seedling stage. They form a pattern over most of the District. Studies in 1974 and 1975 indicate that, although the stands in the areas between the clearcuts represent a harvest potential, many of them cannot be programed for cutting until the seedling stands develop more fully.

Concentration of harvest cannot be shifted to other areas of the Forest within this component because of the need to more closely coordinate harvest activities with watershed, range, soils, wildlife habitat, and scenic values. Consequently, less than the full potential yield has been programed on this District.

Krassel Ranger District. No harvest has been programed on this District since about 1965. Since that time a major research and administrative study effort was made to solve environmental problems of road construction needed for timber harvest. Results of this research were incorporated in the 1974 Multiple Use Plan and into the subsequent Land Use Plan. Both plans provide for timber harvest limited to only those areas identified as safe by the interdisciplinary teams involved in the planning. In October 1974, a task force

reviewed the planned timber management program for this District, as well as the programs for other Districts in the South Fork of the Salmon River drainage. Their report was forwarded to the Payette National Forest Supervisor by the Regional Forester on December 18, 1974.

As a result of this report and internal review which followed, a timber sales program was not established for the Krassel District during 1974 or 1975.

Beginning with 1976, a timber harvesting program will again be scheduled on the District. The program provides for a very careful approach to timber sale activities. For example, the first sale will be a salvage sale of dead and dying timber, on gentle terrain, which will stimulate the production of bitterbrush. In all of the timber harvesting activities, a variety of treatments, proven elsewhere, will be used on "safe" landtypes. No specified road construction is programed until 1981. Sales prior to that year will be in already roaded areas. The full potential yield will not be reached, on an annual basis, until the final year of the 10-year plan period.

USDA - Forest Service

POTENTIAL YIELD OR PROGRAMED ALLOWABLE HARVEST STATEMENT

(Instructions : FSM 2491)

☐ Potential Yield ☒ Programed Allowable Harvest

REGION NO	FOREST NO	SUB UNIT NO	STATE NO	CLASS 1 OR 2	WORK GROUP
04	12	—	16	1	01
(1-2)	(3-4)	(5-6)	(7-8)	(9)	(10-11)

		LAND CLASS CODE	ACTIVITY CODE	AREA M ACRES	SAWTIMBER M CUNITS	SAWTIMBER MMBF	PRODUCTS M CUNITS	PRODUCTS M CORDS
		12-13	14-16	17-23	24-30	31-37	38-44	45-51
STANDARD COMPONENT	PATCH, STRIP, STAND	50	110	.4	10.2	6.0		
	SHELTERWOOD-SEED TREE							
	Seed Cuts	50	130	2.9	83.7	49.4		
	Removels (overstory)	50	140					
	SELECTION	50	150					
	INTERMEDIATE	50	200	1.0	6.6	3.9		
	SALVAGE	50	230	—	5.9	3.5		
	SPECIAL	50	300	0.2	1.4	0.8		
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
	STANDARD TOTAL	50		4.5	107.8	63.4		
SPECIAL	SPECIAL	60	300	0.6	8.5	5.0		
	SALVAGE	60	230	—	3.1	1.8		
	SHELTERWOOD	60	130	1.0	10.7	6.3		
		6_						
		6_						
		6_						
	SPECIAL TOTAL	60		1.6	22.3	13.1		
MARGINAL	REFORESTATION BACKLOG[1]	71						
	TSI BACKLOG [2]	72						
	ACCESS ROAD	73						
		7_						
		7_						
		7_						
		7_						
	MARGINAL TOTAL	70						
UNREGULATED TOTAL		80						
Potential or Programed TOTAL		99		6.1	130.1	76.7		

EFFECTIVE PERIOD FY BASIS	
START (56-59)	END (60-63)
1976	____

REMARKS: [1] Increases are earned at the rate of ___ (64-66) (1. Bd. ft. / 2. Cu. ft.) * per acre per year for each acre reforested since plan revision and will be harvested from standard areas.

[2] Increases are earned at the rate of ___ (68-70) (1. Bd. ft. / 2. Cu. ft.) * for each acre accomplished previous fiscal year and will be harvested from standard areas.

*Cross out cu. ft. or Bd. ft.

APPROVED BY:	TITLE:	DATE:
Charles Wirth	ACTING FOREST SUPERVISOR	2/18/76

USDA - Forest Service

3.1

POTENTIAL YIELD OR PROGRAMED ALLOWABLE HARVEST STATEMENT

(Instructions : FSM 2491)

☐ Potential Yield LODGEPOLE PINE WORKING GROUP ☒ Programed Allowable Harvest

REGION NO	FOREST NO	SUB UNIT NO	STATE NO	CLASS 1 OR 2	WORK GROUP
04	12	-	16	1	61
(1-2)	(3-4)	(5-6)	(7-8)	(9)	(10-11)

		LAND CLASS CODE	ACTIVITY CODE	AREA M ACRES	SAWTIMBER M CUNITS	SAWTIMBER MMBF	PRODUCTS M CUNITS	PRODUCTS M CORDS
		12-13	14-16	17-23	24-30	31-37	38-44	45-51
STANDARD COMPONENT	PATCH, STRIP, STAND	50	110	0.2	4.1	1.6		
	SHELTERWOOD-SEED TREE							
	Seed Cuts	50	130					
	Removals (overstory)	50	140					
	SELECTION	50	150					
	INTERMEDIATE	50	200					
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
		5_						
	STANDARD TOTAL	50		0.2	4.1	1.6		
SPECIAL		6_						
		6_						
		6_						
		6_						
		6_						
		6_						
	SPECIAL TOTAL	60						
MARGINAL	REFORESTATION BACKLOG[1]	71						
	TSI BACKLOG [2]	72						
	ACCESS ROAD	73						
		7_						
		7_						
		7_						
		7_						
	MARGINAL TOTAL	70						
UNREGULATED TOTAL		80						
Potential or Programed TOTAL		99		0.2	4.1	1.6		

EFFECTIVE PERIOD FY BASIS	
START (56-59)	END (60-63)
1976	

REMARKS: [1] Increases are earned at the rate of ___ (64-66) (1. Bd. ft. / 2. Cu. ft.) * per acre per year for each acre reforested since plan revision and will be harvested from standard areas.

[2] Increases are earned at the rate of ___ (68-70) (1. Bd. ft. / 2. Cu. ft.) * for each acre accomplished previous fiscal year and will be harvested from standard areas.

*Cross out cu. ft. or Bd. ft.

APPROVED BY:	TITLE:	DATE:
Walter Wirth	ACTING FOREST SUPERVISOR	2/18/76

4.0 AREA AND VOLUME

4.1 General. The tabulation on page 13 shows area, volume, and growth by each major standard timber management classification.

4.2 Description of Standard Timberland Use Classification. Description of items on page 13.

4.21 Water. Includes area of lakes and streams included in the total net National Forest area.

4.22 Nonforest. Land not stocked or having been stocked by tree cover of at least 10 percent, water areas of less than 40 acres. Includes all grass, brush, rock lands, as well as roads 120 feet or wider.

4.23 Productive Reserved. The figures shown are the area of productive forest land within the Idaho Primitive Area.

4.24 Productive Deferred. Includes productive forest area within areas proposed as possible additions to the wilderness system, study areas adjacent to the Idaho Primitive Area and the Hells Canyon-Seven Devils Scenic Area.

4.25 Standard Component. Includes areas within the zone mapped as Intermediate in Ranger District Multiple Use Plans which were not described in management units requiring other than standard timber management procedures.

4.26 Special Component. Includes most Intermediate zone management units, all of the Travel, Water, Crest, and Riverbreak zones not included as marginal.

4.27 Marginal Component. Includes areas, regardless of multiple use zone, which will require aerial yarding systems and areas which are not economically operable. The reforestation backlog area is that normally within the standard component, but is not now stocked with trees to minimum standards. It was not included in potential yield calculations. Reforestation of this area will increase the potential yield as shown on the Potential Yield Statement.

The TSI backlog is that area of immature stands within the standard component on which precommercial

stocking control could increase production. Since it is now stocked and growing, it was included in the potential yield. This figure is bracketed to indicate the area of opportunity, and is included in the total area as part of the standard component.

4.28 Unregulated Component. Included in this component are the productive forest areas within developed recreation sites and National Forest administrative sites (Ranger Stations, etc.).

4.29 Unproductive Forest. Includes all forest land stocked at least 10 percent with trees but not qualifying as productive forest land.

USDA – Forest Service

STANDARD TIMBERLAND USE CLASSIFICATION

DATE: 12/31/75

(1-2) REGION NO.	(3-4) FOREST NO.	(5-6) SUBUNIT NO.	(7-8) STATE NO.	(9) CLASS 1 OR 2	EFFECTIVE FY START (10-13)	PERIOD BASIS END (14-17)
04	12	–	16	1	1976	1985

NET NATIONAL FOREST OWNERSHIP

FOREST

PRODUCTIVE FOREST

COMMERCIAL FOREST

	LAND CLASS CODE (18-19)	AREAS M ACRES (20-26)	VOLUME [1] M CUNITS (27-34)	VOLUME [1] MMBF (35-42)	TOTAL ANNUAL GROWTH M CUNITS (43-50)	TOTAL ANNUAL GROWTH MMBF (51-58)
WATER	10	6.6				
NON-FOREST	20	428.2				
PRODUCTIVE RESERVED	30	552.2	10544.8	5377.4	162.0	93.6
PRODUCTIVE DEFERRED	40	161.0	5274.3	2545.7	47.3	27.9
STANDARD COMPONENT	50	407.9	10759.3	5016.3	190.8	70.6
SPECIAL COMPONENT	60	299.7	8257.5	3681.5	146.8	66.2
Travel Influence Zone	61	20.5	581.5	252.1	10.2	3.6
Water Influence Zone	62	26.1	740.4	320.9	13.0	4.5
OTHER ZONES	--	146.8	3920.1	1801.4	70.7	25.5
NO POTENTIAL YIELD	--	106.3	3015.5	1307.1	52.9	18.4
MARGINAL COMPONENT	70	93.8	2929.7	1157.7	37.5	15.6
Reforestation Backlog	71	3.3				
TSI Backlog	72	(17.4)				
Access Road	73	90.5	2929.7	1157.7	37.5	15.6
UNREGULATED COMPONENT	80	2.6	73.8	31.6	1.3	0.5
UNPRODUCTIVE FOREST	90	362.1				
1/ NET NATIONAL FOREST TOTALS	99	2314.1	37839.4	17810.2	585.7	262.2

[1] – – % of the volume from class – areas (59-60) (61)

1/ INCLUDES PORTIONS OF BOISE NATIONAL FOREST ADMINISTERED BY THE PAYETTE NATIONAL FOREST

GPO 865-184 2400-26a (5/73)

5.0 COMPARISON WITH PREVIOUS PLAN

5.1 General. The previous plan was approved January 6, 1960. Originally it provided for an annual allowable harvest of 91.5 million board feet from a commercial forest land area of 521 thousand acres; the lodgepole pine type was unregulated.

The allowable harvest was revised to 95.1 million board feet in 1962. This was accomplished primarily by including previously unregulated dead sawtimber in the regulated annual allowable harvest.

A second revision of the plan was made in 1971 which resulted in an annual allowable harvest of 80.1 million board feet. This revision was the result of a temporary timber harvest moratorium in the South Fork of the Salmon River.

5.2 Statistical Comparison. Because of the differences in inventory methods and definitions between the 1953 and 1965 inventories, direct comparisons for certain data are misleading. For example, the 1965 inventory indicated a reduction of 115 thousand acres of pole stands. This was the result of a changed definition which included these stands as sawtimber in 1965. Also the 1972 revision of the inventory was compiled by hand and only those statistics necessary for potential yield calculations were revised.

The following table provides a comparison of some of the more important inventory statistics:

TABLE 2. COMPARISON OF MAJOR INVENTORY STATISTICS

Item	Previous Plan	This Plan
Net National Forest Area (1000 Acres)	2,304.8	2,314.1
Commercial Forest Area (1000 Acres)	690 1/	804.1
Productive Reserved Forest Area (1000 Acres)	557	552.1
Commercial Timber Volume (MMBF)	8,257.4 1/	9,887.1
Net Growth (bd. ft. per acre per year)	162	173

(No cubic measure volume data was included in previous plan.)

1/ These statistics include loggable area and volume only. This most nearly corresponds to the present definition of commercial.

5.3 Planned Area by Silvicultural Treatment Related to Accomplishment. The following tabulation shows this comparison for the period 1960-71:

Silvicultural Treatment	Planned (Acres)	Accomplished (Acres)
Regeneration	43,380	47,827
Risk	129,092	30,266
Salvage*	(60 MMBF)	5,200
Other**	----	12,896

*No area data included in the previous plan.

**Other includes road clearing, special cutting in recreation areas, landscape units and other areas with no specified silvicultural system.

"Risk" cutting in an attempt to reduce losses to insects was found to be generally ineffective and was abandoned in 1966 with only 100 acres cut that year (from a high of almost 22 thousand acres of "risk" cutting in 1956). The volume for this segment of the allowable harvest was cut in an increased regeneration and in "other" (see previous footnote).

5.4 Planned Harvest Volume Accomplishment. During the 13 years under the previous plan, a total of 1,176.9 MMBF was harvested on the Payette National Forest. This is an average of 90.5 MMBF or 4.1 MMBF annually under the average annual allowable harvest of 94.6 MMBF for the period.

Even though the actual harvest was less than the annual allowable harvest on the entire forest, certain blocks were over, and others were under their calculated quotas:

F.Y. 1960-1972

District	District Quotas	Actual Harvest
Council	366.6 MMBF	496.3 MMBF
Weiser	80.2 MMBF	74.3 MMBF
New Meadows	323.4 MMBF	402.9 MMBF
McCall	284.3 MMBF	133.3 MMBF
Big Creek	24.1 MMBF	---
Krassel	150.9 MMBF	70.1 MMBF
Totals	1,229.5 MMBF	1,176.9 MMBF

The "District Quotas" shown on the previous page are calculated for administrative purposes. No potential yield calculations are made for Ranger Districts.

6.0 STATEMENT OF SILVICULTURAL OBJECTIVES

6.1 Management Systems. Even-aged management will be prescribed in all habitat types except a portion of the ponderosa pine series which will be managed as uneven-aged stands, and a portion of the alpine fir/beargrass habitat type. Within this habitat type uneven-aged management will be prescribed on those landtypes where continuous vegetative cover is needed for protection; for example, 109b, 120b, and 120e-2 landtypes. Other areas of the alpine fir/beargrass habitat will be managed under even-aged systems.

6.2 Silvicultural Area Goals. Goals for area or volume by specific silvicultural methods are shown in the Potential Yield Statement. Management data identifying specific silvicultural systems was collected during the 1965 inventory. This data applies to the entire Forest and does not necessarily apply to the relatively short period covered by this plan. The data collected during the inventory indicated the following proportions by harvest method in mature and overmature stands:

Group, Patch, Strip	88%
Seedtree and Shelterwood	3%
Overstory Removal	9%

Currently, almost 60 percent of the area harvested on the Forest is by overstory removal. This large percentage is because of the priority given this method; however, eventually the harvest cutting on the Forest should correspond to the above proportions.

Although many habitat types are suited to regeneration by seedtree or shelterwood, the low proportion inventoried is due to adverse stand conditions, primarily disease, insect infestations, and very high fuel loading which render this method impractical in most overmature stands.

6.3 Policy. The policy for prescription of silviculture on the Payette National Forest will be to apply the best quality timber management practical. The standard component includes the areas identified in Ranger District Multiple Use Plans where standard silvicultural systems will be applied. The areas identified as "special" may require some modification of silvicultural methods; this modification will be based on biological and ecological principles which will produce the greatest timber yield compatible with specified land use restrictions.

Silvicultural systems require a sequence of treatments that must be performed correctly and on schedule. These treatments will be prescribed in advance and designed to assure adequate regeneration within the period specified by FSM instructions.

6.4 Instructions. Procedural guidelines for silvicultural prescriptions are included in the R-4 Timber Sales Handbook and Forest Supplements to this handbook.

7.0 MANAGEMENT CONTROLS

7.1 Objective. The objective of the control system will be to record progress toward accomplishment of the acreage-volume objectives for each of the non-interchangeable components and silvicultural practices. It will also be structured to facilitate development of annual programed sell goals. Control will be by volumes with area estimated.

7.2 Planning. A programed allowable harvest statement will be prepared annually and submitted to the Regional Forester for approval as scheduled by Forest Service Manual instructions. This statement will be based on the Forest Action Plan which shows volume by Ranger District by non-interchangeable component.

7.3 Records. The basic record of timber volume sold will be the Timber Inventory Adjustments File. This file includes volume sold by Forest, District, compartment, and stand. Also shown is the standard timber management land classification and the harvest method. This data will be summarized semi-annually to measure sell volume accomplishment. The basic "cut" record will be the Timber Cut and Sold, Form 2400-49. This is the record of volume reported cut. The volume sold will be used to assess progress toward total potential yield in the Timber Management Plan.

8.0 ACTION PLAN

8.1 Description. This section of the plan lists specific goals, areas, and sales programed or desirable to program to meet overall plan objectives.

8.11 Seeding, Planting, and Timber Stand Improvement. Following are estimates of cultural treatment opportunities other than that to be accomplished by timber sales (through KV collections):

Reforestation	3.3 M Acres
Precommercial Thinning	4.0 M Acres

The precommercial thinning area shown above is less than the inventoried TSI backlog because only a portion of the total area will be accessible during the plan period.

8.12 Development Schedule. The access road needs to support the cutting budget are shown in the Five-Year Sales Plan. This plan is revised annually and shows needed road construction, reconstruction, and rights-of-way for the plan period.

8.13 Cutting Budget. A cutting budget for the plan period is on page 23. Annual program target volumes are shown for each Ranger District for the standard and special components. Sales in the marginal component are not programed, but may be offered as the need develops and funding permits.

8.14 Uncut Volume Under Contract. The estimated uncut volume of timber sales under contract at the beginning of the plan period is:

Working Group	Component (Volume MMBF) Standard	Special	Marginal	Total
Pine, fir, spruce	182.6	46.1	---	228.7
Lodgepole pine	10.1	0.2	---	10.3
Totals	192.7	46.3	None	239.0

8.15 Other Programs. Studies to determine growth and yield in standard areas and in major special areas such as Travel Influence will be initiated during the plan period. Preliminary results of these studies should be available for use in potential yield calculations for the next scheduled plan period.

CUTTING BUDGET - FISCAL YEARS 1976-85 1/

(STANDARD AND SPECIAL COMPONENTS 2/)

District	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Totals
					- Volume MMBF -						
Council	28.6	26.8	15.9	27.9	30.4	25.6	26.1	26.1	26.1	26.1	259.6
Weiser	6.7	5.2	6.2	6.9	7.4	4.8	5.1	5.1	5.1	5.1	57.6
New Meadows	18.5	18.2	13.3	11.4	14.1	12.4	11.6	11.0	9.3	8.2	128.0
McCall	24.9	24.6	36.5	26.1	18.5	31.6	28.5	28.5	34.5	46.5	300.2
Big Creek	----	----	----	----	----	----	----	7.5	7.5	----	15.0
Krassel	0.2	4.6	2.5	3.5	5.0	5.0	7.0	7.0	8.0	10.0	52.8
TOTALS	78.9	79.4	74.4	75.8	75.4	79.4	78.3	85.2	90.5	95.9	813.2

1/ Annual volume to be sold subject to minor change. Overall volume will remain the same.

2/ Additional volume in the marginal component may be scheduled if need and increased funding develop during the plan period.

9.0 PLAN UPDATE AND MODIFICATION

9.1 Update. This plan will be updated as needed to reflect changes in multiple use or land use plans, natural events, or other factors which would alter the average annual potential yield for one year by one million board feet or more. Annually all multiple use and land use plans will be reviewed by December 15 to assess overall impact of changes. If the accumulated effect is estimated to be one million board feet annually or greater, the plan will be adjusted to reflect the changes.

9.2 Scheduled Revision. This plan will be scheduled for revision by July 1, 1985.

10.0 APPENDIX

10.1 Description of the Payette National Forest

10.11 Location. The Payette National Forest is located in west-central Idaho, approximately 100 miles north of Boise. It is bounded on the north by the Salmon River, on the east by the Middle Fork of the Salmon drainage, on the west by the Snake River, and on the south by the Boise National Forest.

10.12 Topography. The topography is varied, ranging from extremely steep, long slopes near the angle of repose, through moderate, timbered slopes to steep, rocky mountain ridges. Much of the commercial forest land is on moderate to steep slopes, although some of this land extends into both upper and lower extremes.

10.13 Climate. The Payette N.F. is in the belt of prevailing westerly winds which carry moisture inland. This moisture is intercepted, primarily in the form of snow, by the rising elevations. The resulting distribution of mean annual precipitation is as follows:

Inches Precipitation	Percent of Working Circle Area
Less than 20	16
21-30	42
31-40	28
41-50	12
More than 50	2

Rainfall is usually confined to spring and early fall. During the period July through September, the mean number of days with precipitation greater than one-tenth inch is only 9, compared to 75 days for the entire year.

10.14 Soils. The two major soil types on the Forest are the granites and the basalts. The basalts are predominantly west of a north-south line through McCall and the granites are predominantly east of this line.

The basalt soils are derived from basalt flows originating during the Tertiary period about 75 million years ago. Each of the successive flows reached a thickness of 1,000 to 1,500 feet, and were mainly olivine basalt. Olivine weathers to a reddish-brown "iddinsite" which is a resid-

ual product of olivine rich in iron. The texture of these soils is generally a silt loam. Soil depth and productivity vary from areas of unproductive "scabland" with soils usually less than 8 inches in depth to highly productive soils with depths in excess of 60 inches.

The granitic soils are derived from the Idaho Batholith which raised during the Cretaceous Period, about 103 to 111 million years ago. Quartz monzonite is the dominant rock on the Payette portion of the batholith. This rock disintegrates to form coarse, sandy loam or loamy sand soils. The average composition of these soils is about 80 percent sand and gravel, 10 to 15 percent silt, 5 to 10 percent clay, and 2 to 5 percent organic matter. These soils are usually light in color with very little profile development. Many of these soils at higher elevations have been glaciated. These relatively young, glaciated soils are stable and not subject to slumping. The unglaciated portions, characterized by V-shaped steep-walled canyons, are unstable and subject to slumping.

10.15 Vegetation. The Payette National Forest lies in the northern province of the Rocky Mountain System. The geographic center of the Forest is approximately 100 miles north of the Snake River, which is the southern boundary of this province. The forests of this province are primarily coniferous; hardwoods, although present, are not significant. Abrupt changes in aspect, slope, soil and site conditions in the rugged topography are reflected in corresponding changes in stand composition.

The vegetation on the Forest is potentially a rather simple mosaic determined by macroclimate, microclimate, soil fertility and soil drainage. In actuality, however, the vegetation consists mainly of a wide variety of intergrating, disturbance-induced communities that are difficult to treat except as developmental series related to specific climaxes. These relatively stable units, the associations, are defined primarily on the basis of relative reproductive success of trees, as this indicates which species will become self-perpetuating dominants of the overstory. Subdivisions are based on the types of herbaceous and shrubby undergrowth which approximate stability long before this state is attained in the tree layer.

For the sake of brevity, the above described associations will be grouped into series for purposes of discussion. Individual habitat types within the series will be referred to as necessary to characterize unique vegetation.

Most descriptions of tree vegetation are based on cover type; the primary tree vegetations found growing on the area to be described. However, cover types are of a temporary nature (relatively speaking) and similar types may be found growing on a variety of conditions; for example, ponderosa pine stands are found in the ponderosa pine, Douglas-fir and the grand fir series. Table 4 shows the unreserved District area by cover type. The following table (No. 3) illustrates the relationship between the relatively temporary tree cover represented by cover type and the potential vegetation as represented by climax series.

TABLE 3. RELATIONSHIP OF COVER TYPE TO CLIMAX SERIES
(AREA, 1,000 ACRES)

Cover Type	Climax Series					Totals
	P.Pine	D.Fir	G.Fir	A.Fir	Lp.Pine	
P. Pine	11	118	90			219
D. Fir		93	136	72		301
W. Larch			6			6
G. Fir			63	5		68
A. Fir				88		88
E. Spruce			21	74		95
Lp. Pine		17	30	125	*	172
Totals	11	228	346	364		949

*Estimated at less than 1%. The inventory data used to construct this table did not provide sufficient data to separate lodgepole pine stands into this series and those stands which are subclimax but actually on other series.

This table does not include 16 thousand acres of deforest productive land with no identified cover type (although habitat type may be identified).

Interpretation of this table indicates that disturbance (usually fire) has enabled seral species such as ponderosa pine, larch, spruce, and lodgepole pine to reproduce on areas supporting more tolerant trees. In the absence of fire, or even-aged management, the area of these stands would be much reduced; for example, ponderosa pine stands would shrink from 219 to 11 thousand acres. On the other hand, the area supporting grand fir (not as desirable as P. Pine) would increase from 63 to 346 thousand acres.

TABLE 4. UNRESERVED DISTRICT AREA BY COVER TYPE (ACRES)

COVER TYPE	District No. 1	2	3	4	5	6	Totals
PRODUCTIVE FOREST							
Ponderosa Pine	70,925	20,540	38,759	41,994	2,754	44,224	219,196
Douglas-Fir	71,751	29,329	54,317	66,743	25,837	53,181	301,158
Western Larch	1,076	--	2,481	675	--	1,534	5,766
Grand (White) Fir	29,779	1,130	23,416	7,258	--	6,671	68,254
Subalpine Fir	7,022	966	13,773	44,465	13,029	8,849	88,104
Engelmann Spruce	7,409	--	27,030	49,297	5,913	5,566	95,215
Lodgepole Pine	4,905	--	24,015	102,971	22,601	17,308	171,800
Nonstocked	249	931	1,110	8,667	653	3,993	15,603
TOTALS	193,116	52,896	184,901	322,070	70,787	141,326	965,096
UNPRODUCTIVE FOREST							
Ponderosa Pine	3,855	1,299	290	10,765	268	8,668	25,145
Douglas-Fir	7,678	7,860	7,358	25,806	9,024	20,281	78,007
Western Larch	--	--	--	229	--	461	690
Grand Fir	--	--	519	187	--	740	1,446
Subalpine Fir	8,864	1,965	15,172	40,936	14,062	25,699	106,698
Engelmann Spruce	599	259	4,004	8,241	1,983	2,693	17,779
Lodgepole Pine			1,082	9,002	1,756	6,910	18,750
Whitebark-Limber Pine	1,781		5,762	10,669	4,829	2,719	25,760
Nonstocked	1,010		290	11,357	1,496	9,285	23,438
TOTALS	23,787	11,383	34,477	117,192	33,418	77,456	297,713
NONFOREST LAND							
Rock, Barren	11,342	1,633	17,471	36,139	10,111	15,714	92,410
Sagebrush, Grass	100,853	42,068	43,971	26,449	5,001	9,238	227,580
Brush	3,933	5,246	3,857	6,877	247	3,203	23,363
TOTALS	116,128	48,947	65,299	69,465	15,359	28,155	343,353
WATER	756	--	1,162	2,254	906	901	5,979
TOTAL NATIONAL FOREST	333,787	113,226	285,839	510,981	120,470	247,838	1,612,141

TABLE 5. COMMERCIAL FOREST AREA AND VOLUME
(UNRESERVED AND UNDEFERRED)

District	Area (Ac.)	Species								
		P. Pine	D. Fir	W. Larch	G. Fir	A. Fir	E. Spruce	Lp.Pine	WLP	Totals
		Volume MMBF Scribner								
Council	174,709	697.0	635.9	64.9	37.5	147.8	126.4	91.9	---	1,801.4
Weiser	52,896	211.6	207.3	----	69.4	2.8	----	----	---	491.1
New Meadows	123,387	347.7	367.9	43.6	306.0	200.9	394.9	147.6	---	1,808.6
McCall	280,999	329.2	698.9	59.6	244.9	484.5	934.1	473.1	5.2	3,229.5
Big Creek	46,924	----	281.7	----	----	111.2	99.2	25.7	7.1	524.9
Krassel	125,165	771.9	795.1	21.7	198.2	55.5	124.5	62.9	1.8	2,031.6
Totals	804,080	2,357.4	2,986.8	198.8	856.0	1,002.7	1,679.1	801.2	14.1	9,887.1
		Volume (1000 Cunits)								
Total		3,970.4	5,584.6	397.6	2,596.9	2,872.8	3,685.1	2,800.4	38.7	21,946.5

TABLE 6. PRODUCTIVE DEFERRED AREA AND VOLUME

District	Area (Ac.)	Species							
		P. Pine	D. Fir	W. Larch	G. Fir	A. Fir	E. Spruce	Lp.Pine	WLP	Totals
		Volume MMBF Scribner								
Council	18,407	16.5	89.4	14.4	97.6	28.8	42.5	18.0	---	307.2
Weiser	----	----	----	----	----	----	----	----	---	----
New Meadows	61,514	55.8	134.6	45.4	92.4	230.9	346.2	88.9	10.5	1,004.7
McCall	41,071	3.1	89.5	12.3	20.3	130.6	310.3	70.4	58.0	694.5
Big Creek	23,863	39.9	45.4	----	----	33.7	158.6	19.3	6.0	302.9
Krassel	16,161	60.9	62.0	0.2	5.6	59.4	35.9	11.3	1.1	236.4
Totals	161,016	176.2	420.9	72.3	215.9	483.4	893.5	207.9	75.6	2,545.7

TABLE 7. TYPE AREA AND VOLUME SUMMARY
(RESERVED)

Volume - MBF - Scribner

Type	Area (Ac.)	GF	SAF	WL	ES	WLP	LP	PP	DF	Total
PP	55,584	23,678	---	1,662	415	---	6,093	561,842	98,660	692,350
DF	234,600	188,064	98,282	46,750	71,454	2,125	65,079	299,627	1,884,890	2,656,271
ES	30,465	24,325	91,305	23,620	489,382	5,288	39,977	---	31,164	705,061
GF	248	2,577	56	96	285	---	97	243	640	3,994
SAF	65,187	1,185	352,205	4,215	168,297	11,198	74,960	527	46,109	658,696
LP	159,706	653	63,785	3,460	77,431	2,220	456,814	---	48,508	652,871
WLP	248	---	840	---	---	2,503	---	---	---	3,343
6	6,197	---	---	---	---	---	---	---	4,846	4,846
Grand Total	552,235	240,482	606,473	79,803	807,264	23,334	643,020	862,239	2,114,817	5,377,432

10.151 Timber Volumes. The unreserved and undeferred commercial forest land on the Forest supports a volume of 9,887.1 million board feet. The predominant species is Douglas-fir, 2.99 billion board feet; followed by ponderosa pine, 2.36 billion board feet; and Engelmann spruce, 1.68 billion board feet. Other major species are alpine fir, grand fir, lodgepole pine, and western larch (see Table 5). Table 6 shows the productive deferred area and volume by species and Table 7 shows the productive reserved area and volume by species.

10.152 Stocking and Thrift. Most stands are considered to be adequately stocked considering all size classes (72 percent of the productive forest area) but stocking of sawtimber trees is inadequate. About 50 percent of the productive forest supports stands of less than 10 M board feet per acre, and only 15 percent supports stands of 20 M board feet or more. Engelmann spruce stands exhibit the greatest degree of overstocking (34 percent), while understocking is most important in the ponderosa pine (30 percent) and Douglas-fir (18 percent) types. Almost 75 percent of the mature and overmature stands are in the high and medium risk categories.

10.153 Site Quality. Average site indices indicate reasonably productive conditions in most regulated types. The following tables summarize the site data from the 1965 timber inventory:

TABLE 8. AVERAGE SITE INDEX (HEIGHT AT 100 YEARS)

Type	Standard Area Only	Total Commercial Area
Ponderosa pine	77	77
Douglas-fir	73	72
Grand fir	84	82
Alpine fir	68	64
Engelmann spruce	58	73
Lodgepole pine	60	56

TABLE 9. STANDARD AREA BY SITE INDEX
(AREA 1000 ACRES)

Site Index	Standard Area
110+	11.3
81 - 110	84.4
61 - 80	160.4
41 - 60	112.5
31 - 40	39.3
Total	407.9

10.154 Insects and Disease. The overmature stands within the Forest are especially susceptible to disease and to attack by insects. Combined, they cause 56 percent of the total mortality. Although disease kills 26 percent of the total trees lost, the most important effect of most diseases is a reduction of net growth rather than the rapid killing of trees.

Insects. Among the many insects prevalent on the Forest, bark beetles have done the most damage in recent years and have been the most expensive to control. The Englemann spruce beetle has been particularly troublesome. Endemic populations are present in most stands and timely removal of logs and treatment of slash is a prerequisite to prevention of serious infestations. Black Hills beetle populations have reached high endemic populations in stagnated ponderosa pine stands, but full-scale epidemics have not occurred within the working circle. Endemic populations of Ips are present, particularly on the western half of the Forest. Epidemic populations have not developed recently, but untreated slash accumulations, particularly from thinning, must be watched to detect buildups.

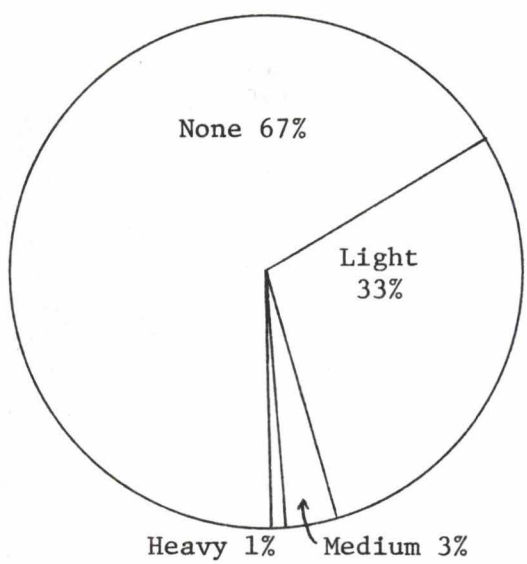
Defoliating insects are also widespread; epidemic populations of the spruce budworm develop periodically in the Idaho Primitive Area. Outside the Primitive Area, smaller infestations also occur and have reached near epidemic proportions recently.

Other insects such as the larch sawfly, pine butterfly, fir engraver, beetle, aphids, and needle miners are also present, but have not presented serious problems.

Diseases and Decay. While usually less dramatic in their effects than insects, diseases and decay probably take a bigger toll in the form of reduced growth rates. A surprisingly large portion of the mortality (26 percent) recorded by the 1965 inventory crew was attributed to various diseases.

Dwarfmistletoe causes one of the most serious disease problems in the Forest. This parasite is particularly common in Douglas-fir, western larch, and ponderosa pine. Stands of all ages are infected, although it is most common in those stands that have been selectively cut, particularly those with significant understory. Current harvest cutting practices are designed to prevent infection of subsequent regeneration. Thinning projects in infected stands must be carefully evaluated and designed to prevent accelerated spread and waste of resources on hopelessly infected stands. Figure 1 illustrates the extent to which this parasite has spread.

FIGURE 1. PERCENT OF COMMERCIAL FOREST AREA INFECTED WITH DWARFMISTLETOE



Wood rotting fungi are important in most overmature stands, particularly grand fir where as much as 60 percent of the stand may be cull. Root rotting fungi are also prevalent and are believed to contribute to windthrow, particularly in overmature stands. Studies are needed to develop methods of prevention of spread and infection of regeneration; however, rapid conversion of overmature stands will reduce losses.

Elytroderma needlecast, rusts and other infectious diseases are also present in many stands, but emphasis on rapid conversion and silvicultural control, where possible, should minimize their effect.

Emphasis on early detection by Forest personnel rather than reliance on aerial detection, should help minimize the impact of both insects and diseases.

10.155 Other Injurious Agents. Livestock, big game, and rodents have, and continue to affect timber stands within the working circle. Protection, especially from livestock, is absolutely necessary for prompt, efficient regeneration. Livestock damage has reduced stocking on both natural and artificially regenerated stands. Porcupines are not serious except in widely scattered areas and extensive control measures have not been necessary. Rodents have caused problems in newly regenerated stands, particularly where direct seeding has been used, but continued use of repellants is expected to keep them under control.

10.156 Growth and Mortality. In spite of the unbalanced inventory, the net growth rate is encouraging. The overall net growth rate for all commercial forest is 173 board feet per acre per year. Mortality is only 38 board feet per acre per year. Total net annual growth is 138.7 million board feet, and total annual net growth for all productive forest is 262.2 million board feet. Figure 2 shows growth and mortality by type.

Insects and disease cause 56 percent of all mortality (Figure 3) with fire and weather contributing 22 percent. All other causes contribute another 22 percent. Minimizing losses caused by insects and disease can effect over half of all causes of mortality. This is an opportunity that should be exploited.

10.16 Local Industry and Economy. The economy of the area adjoining the Payette National Forest is based primarily on the timber industry, livestock ranching, and providing goods and services for outdoor recreationists and tourists.

The forest products industry is the most important single employer in the area, employing 17 percent of the labor force. The following statistics summarize the population, employment situation (for 1970) in the three counties on and adjacent to the Payette National Forest (a small portion of Washington County is also within the Forest boundary, but not included in the summary).

County	Total Population	Total Labor Force	Employed in Timber Industry
Adams	2,877	1,559	313
Idaho	12,891	5,263	876
Valley	3,609	1,844	291

The forest products industry is primarily dependent on timber from federal lands (predominantly National Forest). Adams County is 65.4 percent federally owned, Idaho County 83.2 percent, and Valley County is 86.5 percent federal land.

There are five communities adjacent to the Payette National Forest with a total population of slightly over 3,000, in which sawmills are located. The installed mill capacity within these communities is 145 million board feet annually (based on current rate of operation). About 40 million board feet of this is supplied by the Boise and Nezperce National Forests to the Cascade and Riggins mills. In turn, about 25 to 30 million board feet is shipped outside the Payette Working Circle to the Emmett mill. The cut of non-National Forest timber in the above mills is estimated at 17 million board feet annually.

The present industry is based on sawmilling with the exception of about 15 to 20 million board feet of timber from the Payette National Forest which is used for plywood manufacture at Emmett.

FIGURE 2. GROWTH AND MORTALITY BY TYPE

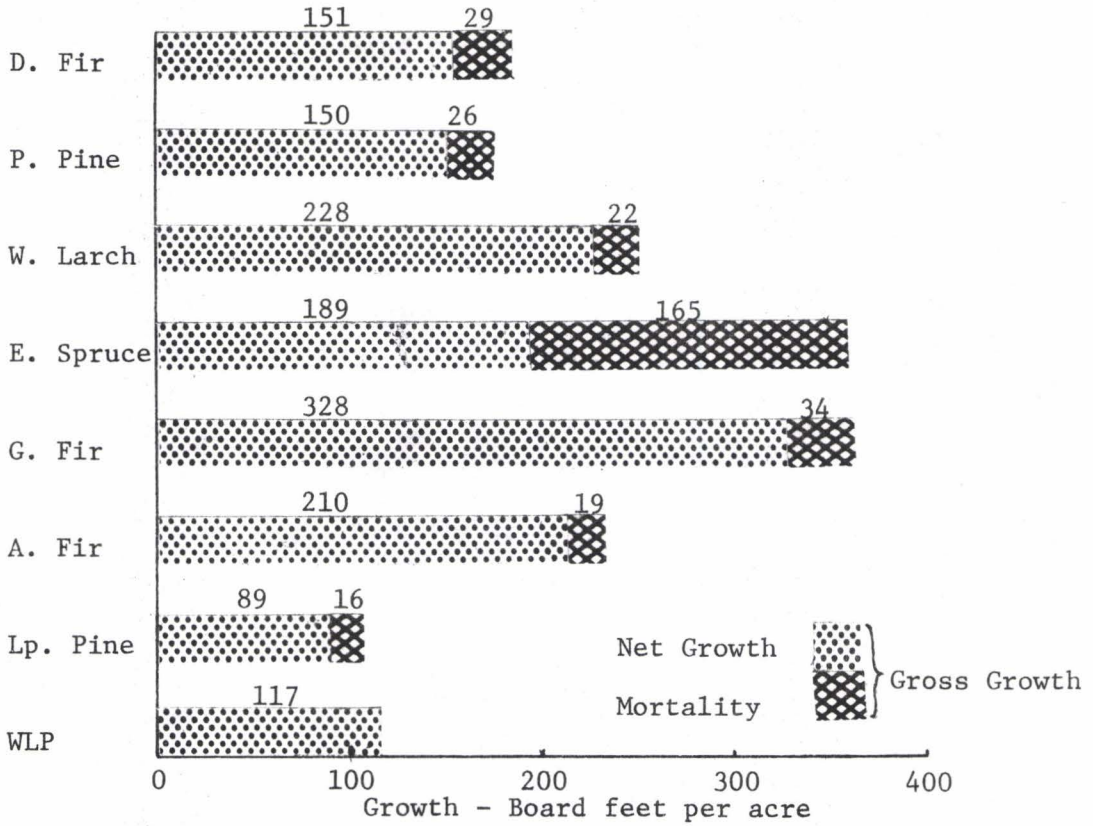
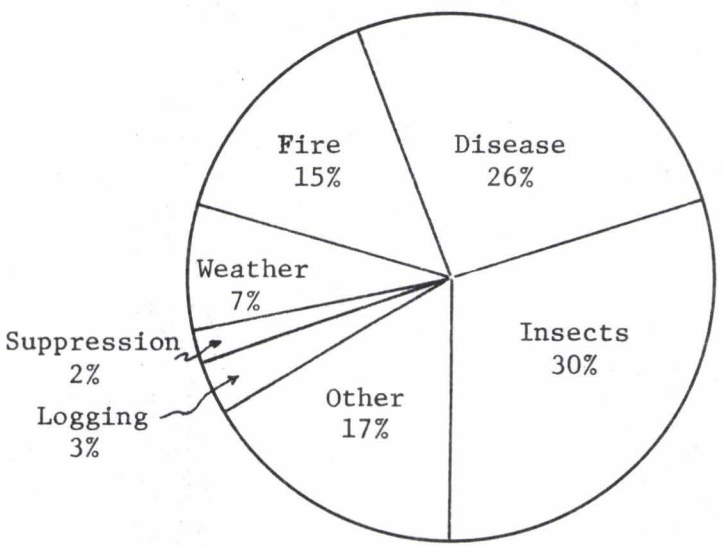


FIGURE 3. PERCENT MORTALITY BY MAJOR CAUSE



10.17 Yarding Method Inventory. During the 1972 revision of the Forest Inventory, estimates of probable yarding methods were made for each of 3,300 photo interpretation points within the standard, special, and marginal strata. The results of these estimates, converted to area, are shown in Table 10.

The column headed "None" shows the area of the special classification on which timber harvest is excluded by District Multiple Use Plan decisions. Ground systems include conventional methods except for cable methods such as high lead or skyline. These methods are grouped in the "Cable to 1500 Feet" column. These methods were not estimated separately and include all silvicultural systems. Skyline yarding would be acceptable on this entire area. On an estimated 20 percent, high lead would be acceptable but not required by timber sale contract. The "Aerial Beyond 5000 Feet" column includes all yarding distances from 5000 feet to several miles.

TABLE 10. ESTIMATED AREA BY YARDING SYSTEM
(Standard, Special, and Marginal Strata Only)

District	None*	Ground Systems	Cable to 1500'	Aerial to 5000'	Aerial Beyond 5000'	Totals
(1) Council	968	168,113	3,593	1,767	---	174,441
(2) Weiser	2,331	40,414	8,360	678	938	52,721
(3) N. Mdws.	15,356	100,529	6,117	1,072	218	123,292
(4) McCall	41,115	192,922	33,022	2,323	9,986	297,368
(5) Big Creek	31,137	13,318	2,139	220	---	46,814
(6) Krassel	15,420	32,932	18,593	13,573	44,350	124,868
Totals	106,327	548,228	71,824	19,633	55,492	801,504

*Area of special classification on which timber harvest is excluded by Multiple Use Plan management decisions.

10.2 Potential Yield Calculations. The potential yield is the maximum harvest that could be planned to achieve the optimum perpetual sustained-yield harvesting level attainable with intensive forestry on regulated areas considering the productivity of the land, conventional logging technology, standard cultural treatments, and interrelationships with other resource uses and the environment.

The following sections describe the methods used on the Payette National Forest to integrate land use planning and the determination of the potential yield.

10.21 Stratification. The multiple use plans completed for each Ranger District on the Forest in 1972 consisted of mapping units which subdivided each District into zones. In many cases, these zones were further subdivided into management units. These zones and units are described in the written portion of the plan. In addition, management decisions are written for each zone or unit. These management decisions provide the management direction for the entire Ranger District; they establish priorities, provide objectives and restrictions.

The multiple use maps were transferred to aerial photos and the area of each zone and unit was subdivided into cover type; in addition, each photo interpretation point was classified according to estimated stand age and potential yarding method.

Based on the planned management, each zone and unit was given the appropriate standard land use classification for timber management. The yarding method sample was used to determine the area of advanced logging methods to be placed in the marginal classification. This is the only classification that is not mapped; however, the area is shown for each zone or unit.

Tables 11 through 16 show the summary of the total area and the productive forest land area for each District. Table 1 is a Forest summary of the classification. Multiple use planning resulted in 326 thousand acres (21 percent of the total productive forest land area) being classified as standard. Within the special zone, there are 106 thousand acres of productive forest land on which timber harvest is excluded by multiple use plan management decisions. This reduction is reflected in the yield adjustments described in the next section.

10.22 Yield Adjustments. In order to reflect the effect of restrictions in multiple use plans, a yield factor was assigned each zone in the standard, special, and marginal classifications. These adjustments were assigned by a team consisting of a timber management specialist, the District Ranger, and his staff. They reflect the expected yield in relation to the standard yield (factor of 1.0) which will result from application of the management direction in the District Land Use Plans.

Adjustments vary within similar zones, depending on the on-the-ground conditions. For example, gentle sloping foreground areas were assigned a larger yield than foreground areas on steep slopes requiring cable yarding, broadcast burning, and additional road construction which may not be compatible over the entire area of the zone. Some adjustments are obvious; for example, when the District Multiple Use Plan specifically states "no timber harvest," the adjustment factor is "0" to reflect no yield. Other adjustments are not as obvious; many result from restrictions which prevent silvicultural practices needed to control spread of disease. In these situations, a factor reflecting reduced yield was used. Following are the ranges in factors used on most situations; some unique situations are not represented:

	Adjustment
High elevation, subalpine areas of above average scenic quality	0 - 0.2
Foreground view areas	0.2 - 0.5
Middleground view areas	0.3 - 0.8
Background view areas	0.7 - 1.0
High mass stability hazard areas	0 - 0.5
High sediment source areas	0
Extreme hazard areas on which vegetation removal not recommended in soil and hydrologic reconnaissance	0
Highly dissected landtypes	0 - 0.5
Areas adjacent to anadromous fish spawning beds	0

Low elevation "fringe" areas	0.2 - 1.0
Stream and streambank protection zones	0 - 0.5
Culinary water supply areas	0.2 - 0.7
Areas of intensive livestock use	0 - 0.2
Wildlife concentration areas such as elk calving sites	0 - 0.5
Proposed recreation development areas	0 - 0.2
Other, depending on specific restriction	0 - 0.9

These adjustments were used to reduce the productive forest land areas entered in the calculation of the regeneration portion of the potential yield.

10.221 Yield Adjustments by Zone and Unit. The following tables show the classification, by total and productive forest area, for each mapped zone or unit on the Payette National Forest.

Adjustment factors for each zone or unit are also shown. Maps showing these zones and plans relating to them are on file at the Supervisor's headquarters and individual District Ranger offices.

TABLE 11. MULTIPLE USE ZONES AND MANAGEMENT UNITS

COUNCIL DISTRICT - COUNCIL UNIT

ZONE OR UNIT	TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
C Crest (All in Mgmt. Units)	--				--		
C1 Lower Council Mt. Slopes	5075		822		0.2		
C2 Summit of Council Mt.	1554		252		0.0		
C3 East Face Council Mt.	2203		356		0.0		
C4 West Mountain	4982		1660		0.2		
C5 Sheep Cr. Basin	669		00		--		
C6 Van Wyck Sheep Driveway	62		11		0.2		
C7 Burnt Wagon Basin Historical Area	10		1		0.0		
C8 Range, Soil, Wildlife Transects	10		1		0.2		
C9 Timber Inventory Plots	--		--		--		
Total	14565	--	3103	--		--	--
I Intermediate	61409	51030			1.0		
I1 Slopes visible from Hwy. 95	863		863		0.7		
I2 Gaylord Cr. Drainage	998		998		0.7		
I3 Land Exchange Areas	2355	1884			1.0		
I4 East Fork Ditch	4		4		0.5		
I5 Proposed Recreation Sites	40		40		0.2		
I6 Van Wyck Sheep Driveway	535		444		0.2		
I7 N. Facing Slopes, L. Weiser, Mid. Fork	1791		1535		0.7		
I8 Crest Like Areas	9038		5051		0.7		
I9 Range, Soil, Wildlife Transects	10		8		0.0		
I10 High Mass Stability Areas	4612		4369		0.5		
I11 Special Use Improvements	2		2		0.0		
I12 Completed S&W Projects	93		78		0.2		
I13 Critical Watershed Areas	319		265		0.0		
I14 Sheep Cr. Mdw.	134		134		0.2		
I15 Indian Mt. L.O.	31				--		
I16 Major Scabland Areas	226				--		
I17 Coop. Forest Mgmt. Dem. Area	2440	2033			1.0		
I18 Timber Inventory Plots	--				--		
I19 Rubicon Road (Inc. in Int.)	--				--		
I20 Proposed Winter Sports Area	2172		2172		0.5		
I21 Bluebunch Ridge	206				--		
I22 Transmission Lines	12		10		0.0		
I23 Mill Cr. Guard Sta.	10				--	8	
I24 Corral Cr. Adm. Site	20				--	17	
I25 High Timber Production Area	11622	9391			1.0		
I26 Oversteepened Canyonlands	1060				--		
Totals	100012	64338	15973	--		25	--

COUNCIL DISTRICT - COUNCIL UNIT (CONT.)

ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
T	Travel	1647		1464		0.5		
T1	Recreation sites, proposed	31		28		0.2		
T2	Cougar Basin Road	525		472		0.5		
T3	No Business Demonstration Area	10		9		1.0		
T4	Middle Fork Road	134		119		0.4		
T5	Granite Cr. Rec. Site	10				--	9	
	TOTALS	2357	--	2092	--		9	--
W	Water	2300		2091		0.5		
W1	Proposed Rec. Sites	31		28		0.2		
W2	Fish passage blocks	--		--		--		
W3	High Mass Stability Hazard	93		85		0.2		
W4	Middle Fork Road	268		244		0.4		
W5	Cabin Cr. Campground	10				--	9	
W6	Big Flat Rec. Site	10				--	9	
W7	Evergreen C.G.	10				--	9	
W8	Little Weiser Road	10		9		0.5		
W9	Middle Fork Falls	82		75		0.0		
W10	East Fork Rec. Site	5				--	5	
W11	Transmission Lines	1		1		0.0		
	TOTALS	2820	--	2533	--		32	--
L	Lower Zone	13032	521			1.0		
L1	Van Wyck Sheep Driveway	154		6		0.2		
L2	Completed S&W Projects	226				--		
L3	Range, Soil, Wildlife Transects	10				--		
L4	Oversteepened Canyon Lands	1935			645	0.5		
	TOTALS	15357	521	6	645		--	--
	SUBTOTAL, COUNCIL UNIT		64859	23707	645		66	--

COUNCIL DISTRICT - HORNET UNIT

	ZONE OR UNIT	TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
C	Crest Zone	5425		2244		0.2		
C 1	Salmon River Sheep Driveway	1637				--		
C 2	Indian Cr. Headwaters	597				--		
C 3	Proposed RecreationSites	31		12		0.2		
C 4	Hornet Reservoirs	93		38		0.2		
C 5	Managed by Weiser Dist.	4262		1764		0.2		
C 6	Timber Inventory Plots	--				--		
C 7	Decomposed Granite Zone	1771		394		0.2		
C 8	Areas Visible From Main Routes	360				--		
C 9	Live Streams To Be Protected	93		38		0.2		
	TOTAL	14269	--	4490	--		--	--
S	Special (Hells Can.-Seven Devils)	49515						18407
I	Intermediate	75590	52726			1.0		
I 1	Salmon River Sheep Driveway	3510		1544		0.2		
I 2	Johnson Park	123				--		
I 3	Live Streams To Be Protected	1503		752		0.5		
I 4	Potential Recreation Sites	41		29		0.2		
I 5	Areas Visible From Main Routes	8338		6162		0.7		
I 6	Goodrich S&W Project	175		122		0.2		
I 7	High Timber Prod. Areas (Not Mapped)							
I 8	Crooked River Seed Prod. Area	62		62		1.0		
I 9	Crooked River Pasture	51				--		
I10	Area Managed by Weiser Dist.	1832	1832			1.0		
I11	Timber Inventory Plots	--				--		
I12	Timber Mgmt. Demonstration Area	278	278			1.0		
I13	Areas of High Mass Stability Hazard	4282		2336		0.5		
I14	Decomposed Granite Zones(not mapped)							
I15	Escape Areas for Elk	9821		8960		0.8		
	TOTALS	105606	54836	19967	--		--	--

COUNCIL DISTRICT - HORNET UNIT (Cont.)

ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
L	Lower Zone	13619	1572			1.0		
L 1	Salmon River Sheep Driveway	113		113		0.2		
L 2	Timber Inventory Plots	--						
L 3	Live Streams to be Protected	1225		612		0.5		
L 4	Potential Rec. Sites	10		2		0.2		
L 5	Areas Visible From Main Routes	463		54		0.7		
L 6	Goodrich S&W Project	206		24		0.2		
L 7	Peck Mt. L.O.	41				--		
	TOTALS	15677	1572	805	--		--	--
W	Water Influence	690		387		0.4		
W 1	Potential Rec. Sites	10		6		0.2		
	TOTALS	700	--	393	--		--	--
T	Travel Influence	1587		1058		0.4		
T 1	Salmon River Sheep Driveway	391		261		0.2		
T 2	County Rock Quarry	10				--		
T 3	Council Cuprum Road	947		631		0.5		
T 4	Bear Cr. C.G.	40				--	27	
T 5	Huckleberry C.G.	21				--	14	
T 6	Timber Mgmt. Demonstration Area	237		158		1.0		
T 7	Potential Rec. Sites	21		14		0.2		
T 8	Hornet Guard Sta.	31				--		
T 9	Bear G.S.	31				--		
T10	Horse Mt. L.O.	10				--		
T11	Smith Mt. L.O.	41				--		
T12	Laferety C.G.	10				--	7	
	TOTALS	3377	--	2122	--		48	--
R	Riverbreak	8451			1024	0.7		
R 1	Timber Inventory Plots	--				--		
R 2	Bear Falls Micro-Wilderness	906					154	
R 3	Live Streams To Be Protected	175			21	0.5		
	TOTALS	9532	--		1045		154	--
	SUBTOTAL, HORNET UNIT		56408	27777	1045		202	1840
	DISTRICT TOTAL	333787	121267	51484	1690		268	1840

TABLE 12. MULTIPLE USE ZONES AND MANAGEMENT UNITS

WEISER DISTRICT ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
C	Crest	5579		827		0.2		
C 1	Steep Rocky Headland (Benton Pk.)	173		25		0.0		
C 2	Sturgil Pk. L.O.	51		8		0.0		
C 3	Sheep Driveways	683		101		0.2		
C 4	Hitt Mt. Ski Area	500		167		0.2		
C 5	Proposed Cudy Mt. Rec. Sites (not mapped)							
C 6	Observation View Points	10)						
C 7	Inkwell L. Mgmt. Unit	5)		2		0.0		
C 8	Summers Grave	1)						
C 9	Rush Cr. Watershed	2450		141		0.2		
C10	Active Mining Units	510		76		0.0		
	TOTALS	10052	--	1347	--		--	--
I	Intermediate Zone	57163	29845			1.0		
I 1	Depositional Bottom Lands	367		367		0.5		
I 2	Oversteepened Canyonlands	663				--		
I 3	Strongly Dissected Mt. Slope	1173				--		
I 4	Strongly Dissected Deep Soils	4678		2575		0.7		
I 5	Strongly Dissected Deep Sandy Soils	1754		1286		0.5		
I 6	Toe Slope Lands	887		448		0.5		
I 7	Benchy Plateau Slopes	5702	2877			1.0		
I 8	Stock Driveways	704		356		0.2		
I 9	Hitt Mt. Ski Area	1346		1346		0.5		
I10	Mining Management Units	1244				--		
I11	Proposed Recreation Sites	194		97		0.2		
I12	Bear Cr. Mgmt. Unit	347	174			1.0		
I13	Seid Cr.-Pole Cr. Mgmt. Unit	673	339			1.0		
I14	Fourth-of-July Summer Home Area	10				--	5	
I15	Coop. Snow Courses	--				--		
I16	Rush Cr. Watershed	2009		1563		0.5		
I17	Grade Cr.-Dukes Cr. Headwaters	775			678	0.5		
I18	Scenic Background (E. Brownlee Cr.)	408		205		0.7		
I19	Scenic Background (Mid. Brownlee)	673		449		1.0		
I20	Dukes Cr.	2234			1862	1.0		
I21	Starveout-No Business Cr.	938			938	1.0		
I22	Future Travel Influence Zone	71		36		0.3		
	TOTALS	84013	33235	8728	3478		5	--

WEISER DISTRICT ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
T	Travel	4023		2683		0.3		
T 1	Proposed Rec. Sites	61		41		0.2		
T 2	East Brownlee C.G.	5				--	3	
T 3	Bear Cr. Demonstration Unit	10		6		1.0		
T 4	Fourth of July Summer Home Area	1				--	1	
T 5	Hitt Mt. Ski Area	296		198		0.5		
T 6	Stinkwater Sheep Driveway	--		--		--		
T 8		10		10		0.0		
	TOTALS (2932)	4396	--	2928	--		4	--
W	Water Influence	793		793		0.3		
W 1	Fur Trader Mgmt. Unit	1				--	1	
W 2	Spring Cr. C.G.	112				--	112	
W 3	Justrite, Paradise & Kiwanis C.G.	31				--	31	
W 4	Hitt Mt. Assn. Cow Camp	2				--	2	
W 5	Mann Cr. Adm. Site	20					20	
	TOTALS (959)	959	--	793	--		166	--
R	Riverbreak (All in Mgmt. Units)	--				--		
R 1	Steep Rocky Headlands, Shallow Soil	1397		698		0.0		
R 2	Oversteepened Canyonlands	6691		247		0.0		
R 3	Strongly Diss. Mt. Slope, Shallow Soil	2703		1201		0.0		
R 4	Strongly Diss. Mt. Slope, Mod. Deep Soil	1357				--		
R 5	Moderately Diss. Mt. Slope Land	439				--		
R 6	Active Mining on Steep, Rocky Headlands	1102				--		
R 7	Stock Driveways	133		66		0.0		
	TOTALS	13822	--	2212	--		--	--
	DISTRICT TOTALS (52896)	113226	33235	16008	3478		175	--

TABLE 13. MULTIPLE USE ZONES AND MANAGEMENT UNITS

NEW MEADOWS DISTRICT ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
C	Crest	25131		7319		0.0		
C 3	Hard Cr. G.S. Watershed	10				---	10	
C 8	Cirque Basin Mgmt. Units	1167		130		0.0		
C11	Elk L. Adm. Site	85				---	44	
C12	Elk L. Mgmt. Unit	14		2		0.0		
C13	Duck L. Mgmt. Unit	348		---				
C15	Little Salmon Watershed Mgmt. Unit	1597		463		0.0		
C16	High Mtn. Lakes Mgmt. unit	461		154		0.0		
	TOTAL (8122)	28813	---	8068	---		54	---
I	Intermediate	83025	71990		1362	1.0		
I 3	Culinary Water Supplies	100		86		0.7		
I 6	Stock Driveways	3440		1524	52	0.2		
I12	Mud Cr. Mgmt. Unit	5569	4177			1.0		
I14	Landform 109a-2 Mgmt. Unit	2655	158		2165	1.0		
I15	Landform 120b Mgmt. Unit	1670		1200	470	0.7		
I16	Landtype 120b-7 Mgmt. Unit	2416			1537	1.0		
I17	Landform Type 120c-10	780			780	0.7		
I19	Landform Type 102e-4 Mgmt. Unit	3266		2858		1.0		
I20	Seed Orchard	45	45			1.0		
I23	Price Valley Adm. Site	82				---	41	
I24	Thorn Creek Adm. Site	31				---		
I27	Lost Mtn. Mgmt. Unit	4381	3408			1.0		
I29	West Branch Watershed Mgmt. Unit	2344	2344			1.0		
I30	Steck Mining Claim	41		41		0.0		
I34	Morin L. Mgmt. Unit	51	25			1.0		
I39	Landtype 111b Unit	508		185	278	1.0		
	TOTAL (94,726)	110404	82147	5894	6644		41	---
L	Lower Zone	5876		1869		0.2		
L 3	Lost Mtn. Mgmt. Unit	1740		580		0.2		
	TOTAL	7616	---	2449	---		---	---
T	Travel Influence	5675		3152		0.5		
T 3	Hard Cr. Adm. Site	6		---			---	
T 5	Lloyds Lake Basin Mgmt. Unit	225		---				
T 6	Steck Mining Claim	31		31		0.0		
	TOTAL (3183)	5937	---	3183	---		--	---

NEW MEADOWS DISTRICT (Cont.)

	ZONE OR UNIT	TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
W	Water Influence	1073		715		0.5		
W 2	Culinary Water Supplies	60		40		0.5		
W 4	Goose L. Mgmt. Unit	1730		216		0.0		
W 7	Hazard L. Mgmt. Unit	1607		1286		0.2		
W 9	Lower Goose Cr. Mgmt. Unit	624		416		0.5		
W10	Lost Valley Res. Mgmt. Unit	1580		1054		0.5		
	TOTAL (3727)	6674	---	3727	---		--	
R	Riverbreak	5224	---	---	4180	0.4		
S	Special	7821	---	---	---	--		3027
	Roadless Areas:							
3	Pattrick Butte-Lava Ridge (253)	58000				--		25810
5	Rapid River (#24)	43350				--		32677
1	Little French Cr. (#26)	12000		7000		0.0		
	TOTAL	113350	---	7000	---			58487
	DISTRICT TOTAL (184,901)	285839	82147	30321	10824		95	61514

McCALL DISTRICT

TABLE 14. MULTIPLE USE ZONES AND MANAGEMENT UNITS

	ZONE OR UNIT	TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
C	Crest Zone	22004		5322	354	0.2		
C 1	Scenic Crest	36877		9836		0.0		
C 2	Valley Train	4409		4239		0.5		
C 3	Grassy Slopes	2331		1793		0.0		
C 4	High Elevation Basins	3518		1408		0.0		
C 5	Sparsely Timbered Slopes	17328		11072		0.0		
C 6	U. French Cr. Valley	238		238		0.0		
C 7	Mountain Lakes	188		44		0.0		
C 8	Wilderness Candidate Areas	74382		--		--		18174
C 9	Porphry Contiguous Unit	7948		--		--		2050
	TOTALS (54,530)	169223	--	33952	354		--	20224
I	Intermediate	166776	151596		1540	1.0		
I 1	Whangdoodle Unit	31788		21955		0.2		
I 2	Porphry Unit	12742				--		10986
I 3	Raines Cr. Unit	5674		5456		0.8		
I 4	Warren Watershed	3676		3308		0.2		
I 5	Backdrop View	5806		5322		0.7		
I 6	Potential Development Sites	1465		1319		0.2		
I 7	Pony Meadows	725		725		0.5		
I 8	Rocky Glacial Scoured Land	2878		576		0.5		
I 9	Steep, Rocky Mountain Slope	7546		4581	2157	0.5		
I10	Steamboat & Bear Cr.	2275		2068		0.5		
I11	Wilderness Candidate Areas	2978						2382
	TOTALS (213,971)	244329	151596	45310	3697		--	13368
R	Riverbreak	23531		11240		0.2		
					7060	1.0		
R 1	Critical Slopes	25523		9733		0.0		
R 2	Sparsely Timbered Critical Slopes	4366		2578		0.0		
R 3	Porphry Unit	20037						7479
	TOTALS (38,090)	73457	--	23551	7060		--	7479
T	Travel Influence	5245		4468		0.5		
T 1	Warren Townsite Vicinity	2		--		--		
T 2	Warren Administrative Site	14		--		--		
T 3	NFRS Sites	277		236		0.2		
T 4	Payette Lakes Ski Area	76				--	38	

McCALL DISTRICT (Cont.)

ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
T 5	Brundage Mt. Ski Area	955				--	478	
T 6	Paddy Flat Adm. Site	69				--	21	
T 7	Kennally C.G.	19				--	19	
	TOTALS (5260)	6657	--	4704	--		556	--
W	Water Influence	3532		3179		0.5		
W 1	Salmon, Lower Secesh, French C.	9349		4347		0.0		
W 2	Warren Dredge Ponds	220		110		0.2		
W 3	Administrative Sites	145				--	130	
W 4	Fall Cr. Rec. Site	37				--	21	
W 5	Carey Cr. Rec. Site	69				--	--	
W 6	NFRS Sites	616		554		0.2		
W 7	NFRS Sites	26		23		0.2		
W 8	Burgdorf C.G.	37				--	37	
W 9	Junction C.G.	32				--	32	
W10	California Cr. Bar C.G.	44				--	44	
W11	Chinook C.G.	201				--	100	
W12	Chittam Rapids Boat Landing	44				--	--	
W13	Upper Payette Lake Rec. Area	1005				--	502	
W14	Brundage Reservoir Rec. Area	439		66		0.0		
W15	Granite Lake Rec. Area	327				--	98	
W16	Black Lee C.G.	5				--	5	
W17	Loon Lake Rec. Area	1081		865		0.2		
W18	Lake Fork C.G.	106				--	106	
	TOTALS (10219)	17315	--	9144	--		1075	--
	DISTRICT TOTALS (322070) *	510981	151596	116661	11111		1631	41071

* Net Area = 518,621 - 7640 Ac to BNF

TABLE 15. MULTIPLE USE ZONES AND MANAGEMENT UNITS

BIG CREEK DISTRICT

	ZONE OR UNIT	TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
C	Crest	21990		16264		0.0		
	TOTAL	21990	--	16264	--		--	--
I	Intermediate	10520		6192	3752	1.0		
I1	Scenic View Unit	1340		1139		0.7		
	TOTAL	11860	--	7331	3752		--	--
R	Riverbreak	2010		2010		0.0		
W	Water Influence	1900		1326	28	0.5		
W1	Recreation Sites	--						
W2	Upper Big Cr. Composite	--						
	TOTAL	1900	--	3336	28		--	--
T	Travel Influence	2960		2467		0.5		
T1	Recreation Sites	--						
T2	Big Cr. Adm. Site	110				--	110	
T3	Big Cr. Composite	1070		892		0.0		
T4	Stibnite Mining Area	1160		366	407	0.5		
	TOTAL	5300	--	3725	407		110	--
432	Smith Cr. Contiguous Area (S9)	9290						5807
256	Pinnacle (S3)	40320						18056
273	Logan Mt.-Quartz Cr. (S4)	28000		11971		0.0		
	TOTAL							23863
	DISTRICT TOTAL	120670	--	42627	4187		110	23863

TABLE 16. MULTIPLE USE ZONES AND MANAGEMENT UNITS

KRASSEL DISTRICT ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
C	Crest	27848		6748		0.0		
C1	Western Crest Zone	55589				--		13788
C2	Blue Lake Unit	50		6		0.0		
C3	Lick Cr. View	10210				--		681
	TOTAL	93697	--	6754	--		--	14469
I	Intermediate Zone	21104	19697		281	1.0		
I1	Strongly Diss. Mt. Slope	2014		1007	806	0.8		
I2	Strongly Diss. Mt. Slope (Thick Mantle)	1490		1490		0.8		
I3	Mod.Diss., Highly Weathered Mt. Slope	6696		5931		0.8		
I4	Steep, Mod. Diss. Mt. Slope	2779		2779		0.8		
I5	Scenic View	1329		1196	133	0.7		
I6	Scenic View	906		906		0.5		
I7	Scenic View	1460		833	627	0.3		
I8	Scenic View	5820		4289	306	0.8		
I9	Scenic View	2638		2638		0.8		
I10,16-20	Roadless Units	42711			35069	1.0		
I11	Minor Tributary Bottom Land	1420		1420		1.0		
I12	Camp Cr. Seed Prod. Unit	40	40			1.0		
I13	Winter Game Concentration Areas	906		452	454	1.0		
I14	Caton Lake Scenic Area	262		187		0.0		
I15	Marginal Values Unit	3282			3009	0.8		
	TOTAL	94857	19737	23128	40685		--	--
R	Riverbreak Zone	30308		2089	20381	0.8		
R1	High Sediment Source Canyon	13351		3179		0.0		
R2	Calibrated Watersheds	1680			1440	0.8		
	TOTAL	45339	--	5268	21821		--	--
W	Water Influence	1017		569		0.5		
W1	Recreation Sites	302				--	141	
W2	Secesh Camp	10				--	5	
W3	Krassel Adm. Site	121				--	121	
W4	Scenic Timber Unit	816		326		0.8		
W5	Spawning Bed Unit	634		634		0.0		
W6	High Sediment Source Areas	6854		4000		0.0		
W7	White Water Unit	1110		646		0.0		
	TOTAL	10864	--	6175	--		267	--

ZONE OR UNIT		TOTAL AREA	COMMERCIAL FOREST AREA STANDARD	SPECIAL	MARGINAL	YIELD ADJ.	UNREGULATED	DEFERRED
T	Travel Influence	836		836		0.5		
T 1	Recreation Sites	60				--	30	
T 2	Lick Cr. View	1692				--		1692
T 3	Lick Cr. Viewpoint	30		20		0.0		
T 4	Poverty Burn View	10						
T 5	Scenic Timber Unit	453		444		0.8		
	TOTAL	3081	--	1300	--		30	1692
	DISTRICT TOTAL	247838	19737	42625	62506		297	16161

10.23 Potential Yield Calculations, Regeneration. The regeneration portion of the potential yield was calculated on the Intermoutain Region's CDC 3100 computer using the ARVOL computer program developed by the Pacific Northwest Experiment Station at Portland, Oregon.

This program is essentially an application of the area-volume check method in which the stands are listed in order of decreasing age, appropriate yield equations applied, and a trial regeneration harvest figure is used to start calculations which are repeated until the culminated years to harvest the area are equal to the rotation. This figure is then the average annual regeneration harvest that can be sustained for the entire rotation; it is shown on the copies of the printouts on the following pages as "trial cut."

Rotations were selected by curving inventory site trees age and DBH to determine the number of years required to reach the tree diameter objectives shown below:

Type	Diameter Objective (In.)	Rotation (Years)
Ponderosa pine	20	110
Douglas-fir, W. larch	20	120
Grand fir	18	110
Alpine fir	14	120
Engelmann spruce	19	130
Lodgepole pine	12	110

Diameter objectives represent sizes of sawtimber which are reasonable to expect without reductions in yield to produce high quality wood; the corresponding rotations are short enough to minimize losses from insects and disease and long enough to produce usable sawtimber. They are averages, some trees in most stands will be larger and a few will be smaller, but still of sawtimber size. Shorter rotations will grow trees to the above sizes in less time on above average sites, and on sites below average longer rotations will be necessary.

Rotations used in the potential yield calculations were weighted (by type area) averages rounded upward to 120 years in the pine-fir-spruce working group. This resulted in extra regeneration periods of 3 years in the standard and special strata, and 5 years in the marginal strata, even though the ARVOL printout indicates no regeneration period was included.

Separate calculations were made for standard, special, and marginal classifications for two working groups. These working groups, pine-fir-spruce, and lodgepole pine, will be controlled separately.

10.231 Second Rotation Yields. The ARVOL program for determining potential yield is limited to a single rotation. A significant departure from the planned potential yield in the second rotation is undesirable and would violate the even-flow principle (Reg. 36 CFR 221.3).

The following summary of area control calculations for the second rotation shows the predicted potential yield for the two working groups. Two assumptions were made for these calculations: (1) Area control will be adopted by the end of the first rotation, and (2) the yields shown for managed stands will be attained.

PROJECTED SECOND ROTATION POTENTIAL YIELD

Area (1000 Acres)	Rotation	Average Yield Per Acre (MBF)	Avg. Annual Potential Yield (MMBF)
Pine-Fir-Spruce Working Group			
498.7	120	21.6	89.8
Lodgepole Pine Working Group			
89.3	110	14.6	11.9
Average Annual Yield, Second Rotation			101.7
Average Annual Yield, First Rotation			97.7

The above summary includes the standard, special, and marginal components.

10.24 Potential Yield Calculations, Intermediate. The ARVOL method does not compute intermediate yields; this component is estimated for the standard and a portion of the special component:

a.	Area of stands in 60-140 year age classes	22,766 Acres
b.	Proportion in need of thinning	.50
c.	Area in need of thinning	11,383 Acres
d.	Annual program to accomplish in 20 years	569 Acres
e.	Estimated yield per acre (1/3 of 121-140 class vol./Ac.)	3.964 MBF
f.	Annual potential yield	2.3 MMBF

10.25 Potential Yield Calculations, Salvage. The ARVOL method does not compute salvage yield; that is, the cutting of scattered, dead and dying trees. Table 17 summarizes the calculations of salvage yields. Standard and special yields are based on average salvageable dead volumes inventoried, and the volumes which are or will be accessible during the plan period. This estimate includes salvage in areas outside regeneration cutting units.

The marginal salvage potential is entered as a potential increase based on access provided in addition to the areas within the action plan for the pine, fir, and spruce working group.

Because of current economic conditions, all salvage within the lodgepole pine working group is included in the marginal component.

PAYETTE N.F. - PINE-FIR-SPRUCE WORKING GROUP - STANDARD COMPONENT

AREA-VOLUME CHECK

AGE (YEARS)	AREA (ACRES)	AVE.AGE WHEN CUT	YIELD/ACRE (BD.FT.)	TOTAL YIELD (BD.FT.)	YEARS TO CUT	SUM YEARS TO CUT	ACRES TO CUT ANNUALLY
140.	280072.	180.	16744.	.468953E010	80.9	80.9	3464.
130.	4842.	212.	26133.	.126537E009	2.2	83.1	2218.
110.	3017.	194.	30429.	.918033E008	1.6	84.6	1904.
90.	5519.	176.	31614.	.174480E009	3.0	87.6	1836.
70.	9388.	160.	30587.	.287151E009	4.9	92.6	1897.
50.	10718.	145.	28209.	.302343E009	5.2	97.8	2059.
30.	37418.*	136.	26273.	.983094E009	16.9	114.7	2208.
10.	13678.	128.	24102.	.329671E009	5.7	120.4	2409.

TOTAL AREA= 364652. ACRES TOTAL VOLUME= 6984604358. BOARD FEET

POTENTIAL YIELD = 58000. MBF

ROTATION = 120. YEARS

AVERAGE AREA TO CUT EACH YEAR = 3039. ACRES

AVERAGE YIELD PER ACRE = 19154. BD.FT.

AVERAGE YIELD PER ACRE PER YEAR = 160. BD.FT.

AREA-VOLUME CHECK

YEARS TO CUT - ROTATION = 0.4 YEARS

ALLOWABLE CUT PER ACRE PER YEAR - AVE. YIELD PER ACRE PER YEAR = -0.6 BD.FT.

*Includes 25,206 acres of overstory removal in the 140+ age class reentered at estimated effective age.

PAYETTE N.F. - PINE-FIR-SPRUCE WORKING GROUP - SPECIAL COMPONENT

AREA-VOLUME CHECK

AGE (YEARS)	AREA (ACRES)	AVE.AGE WHEN CUT	YIELD/ACRE (BD.FT.)	TOTAL YIELD (BD.FT.)	YEARS TO CUT	SUM YEARS TO CUT	ACRES TO CUT ANNUALLY
140.	68732.	180.	16744.	.115085E010	79.4	79.4	866.
130.	2958.	212.	26104.	.772146E008	5.3	84.7	555.
110.	1439.	196.	30058.	.432533E008	3.0	87.7	482.
90.	1187.	179.	31601.	.375108E008	2.6	90.3	459.
70.	3227.	164.	30970.	.999417E008	6.9	97.2	469.
50.	1535.	149.	28873.	.443197E008	3.1	100.2	502.
30.	9142.*	139.	26830.	.245277E009	16.9	117.1	540.
10.	2251.	129.	24484.	.551131E008	3.8	120.9	593.

TOTAL AREA= 90471. ACRES TOTAL VOLUME= 1753479037. BOARD FEET

POTENTIAL YIELD = 14500. MBF

ROTATION = 12 . YEARS

AVERAGE AREA TO CUT EACH YEAR = 754. ACRES

AVERAGE YIELD PER ACRE = 19382. BD.FT.

AVERAGE YIELD PER ACRE PER YEAR = 162. BD.FT.

AREA-VOLUME CHECK

YEARS TO CUT - ROTATION = 0.9 YEARS

ALLOWABLE CUT PER ACRE PER YEAR - AVE. YIELD PER ACRE PER YEAR = -1.2 BD.FT.

*Includes 6,435 acres of overstory removal in the 140+ age class reentered at estimated effective age.

PAYETTE N.F. - PINE-FIR-SPRUCE WORKING GROUP - MARGINAL COMPONENT

AREA-VOLUME CHECK

AGE (YEARS)	AREA (ACRES)	AVE.AGE WHEN CUT	YIELD/ACRE (BD.FT.)	TOTAL YIELD (BD.FT.)	YEARS TO CUT	SUM YEARS TO CUT	ACRES TO CUT ANNUALLY
140.+	61263.	189.	16744.	.102579E010	97.0	97.0	632.
130.	947.	228.	19317.	.182929E008	1.7	98.7	546.
110.	1395.	210.	26606.	.371160E008	3.5	102.2	397.
90.	1092.	194.	30430.	.332294E008	3.1	105.4	347.
70.	1749.	178.	31613.	.552911E008	5.2	110.6	335.
50.	1433.	163.	30872.	.442395E008	4.2	114.8	343.
30.	2308.	148.	28735.	.663196E008	6.3	121.1	368.
10.	0.	131.	2.	.000000E001	0.0	121.1	2.

TOTAL AREA= 70187. ACRES TOTAL VOLUME= .128027626E010 BOARD FEET

TRIAL CUT= .10575000E008 BD.FT.
ROTATION= 120. YEARS
AVERAGE AREA TO CUT EACH YEAR= 585. ACRES
AVE.YIELD PER ACRE= 18241. BD.FT.
AVE.YIELD PER ACRE PER YEAR= 152. BD.FT.

AREA-VOLUME CHECK
YEARS TO CUT-ROTATION= 1.1 YEARS
ALLOWABLE CUT PER ACRE PER YEAR-AVE.YIELD PER ACRE PER YEAR= -1.3 BD.FT.

PAYETTE N.F. - LODGEPOLE PINE WORKING GROUP - STANDARD COMPONENT

AREA-VOLUME CHECK

AGE (YEARS)	AREA (ACRES)	AVE.AGE WHEN CUT	YIELD/ACRE (BD.FT.)	TOTAL YIELD (BD.FT.)	YEARS TO CUT	SUM YEARS TO CUT	ACRES TO CUT ANNUALLY
140.	27000.	162.	11997.	.323929E009	43.7	43.7	618.
130.	1381.	175.	11462.	.158290E008	2.1	45.8	647.
110.	1598.	157.	12084.	.193105E008	2.6	48.4	614.
90.	1098.	139.	11932.	.131012E008	1.8	50.2	622.
70.	17732.	134.	11762.	.208558E009	28.1	78.3	631.
50.	16053.	141.	11983.	.192367E009	25.9	104.2	619.
30.	2860.	136.	11844.	.338743E008	4.6	108.8	627.
10.	0.	119.	2.	.000000E001	0.0	108.8	2.

TOTAL AREA= 67722. ACRES TOTAL VOLUME= .806968878E009 BOARD FEET

TRIAL CUT= .74200000E007 BD.FT.
ROTATION= 110. YEARS
AVERAGE AREA TO CUT EACH YEAR= 616. ACRES
AVE.YIELD PER ACRE= 11916. BD.FT.
AVE.YIELD PER ACRE PER YEAR= 108. BD.FT.

AREA-VOLUME CHECK
YEARS TO CUT-ROTATION= -1.2 YEARS
ALLOWABLE CUT PER ACRE PER YEAR-AVE.YIELD PER ACRE PER YEAR= 1.2 BD.FT.

PAYETTE N.F. - LODGEPOLE PINE WORKING GROUP - SPECIAL COMPONENT

AREA-VOLUME CHECK

AGE (YEARS)	AREA (ACRES)	AVE.AGE WHEN CUT	YIELD/ACRE (BD.FT.)	TOTAL YIELD (BD.FT.)	YEARS TO CUT	SUM YEARS TO CUT	ACRES TO CUT ANNUALLY
140.	9239.	173.	8640.	.798266E008	66.6	66.	140.
130.	91.	136.	9120.	.829969E006	0.7	66.7	133.
110.	968.	180.	8798.	.851630E007	7.3	73.7	138.
90.	2628.	173.	8642.	.227117E008	18.8	92.5	140.
70.	1536.	168.	8521.	.130882E008	10.8	103.3	142.
50.	706.	156.	8210.	.579598E007	4.8	108.1	148.
30.	0.	138.	2.	.000000E001	0.0	108.1	2.
10.	0.	118.	2.	.000000E001	0.0	108.1	2.

TOTAL AREA= 15168. ACRES TOTAL VOLUME= 130768675. BOARD FEET

POTENTIAL YIELD = 1210. MBF

ROTATION = 110. YEARS

AVERAGE AREA TO CUT EACH YEAR = 138. ACRES

AVERAGE YIELD PER ACRE = 8621. BD.FT.

AVERAGE YIELD PER ACRE PER YEAR = 78. BD.FT.

AREA-VOLUME CHECK

YEARS TO CUT - ROTATION = -1.9 YEARS

ALLOWABLE CUT PER ACRE PER YEAR - AVE. YIELD PER ACRE PER YEAR = 1.4 BD.FT.

PAYETTE N.F. - LODGEPOLE PINE WORKING GROUP - MARGINAL COMPONENT

AREA-VOLUME CHECK

AGE (YEARS)	AREA (ACRES)	AVE.AGE WHEN CUT	YIELD/ACRE (BD.FT.)	TOTAL YIELD (BD.FT.)	YEARS TO CUT	SUM YEARS TO CUT	ACRES TO CUT ANNUALLY
140.+	2002.	159.	8290.	.165957E008	37.3	37.3	54.
130.	225.	169.	8559.	.192567E007	4.3	41.6	52.
110.	0.	152.	2.	.000000E001	0.0	41.6	2.
90.	621.	137.	7639.	.474371E007	10.7	52.3	58.
70.	1159.	132.	7465.	.865245E007	19.4	71.7	60.
50.	1180.	132.	7451.	.879205E007	19.8	91.5	60.
30.	1124.	131.	7424.	.834417E007	18.7	110.2	60.
10.	0.	120.	2.	.000000E001	0.0	110.2	2.

TOTAL AREA= 6311. ACRES TOTAL VOLUME= .490537347E008 BOARD FEET

TRIAL CUT= .44500000E006 BD.FT.
ROTATION= 110. YEARS
AVERAGE AREA TO CUT EACH YEAR= 57. ACRES
AVE.YIELD PER ACRE= 7773. BD.FT.
AVE.YIELD PER ACRE PER YEAR= 71. BD.FT.

AREA-VOLUME CHECK
YEARS TO CUT-ROTATION= 0.2 YEARS
ALLOWABLE CUT PER ACRE PER YEAR-AVE.YIELD PER ACRE PER YEAR= -0.1 BD.FT.

TABLE 17. ESTIMATED SALVAGE POTENTIAL YIELD

	Pine, Fir, Spruce Working Group			Lodgepole Pine Working Group
	Standard	Special	Marginal	All Components
Area of Overmature Timber (Acres)	277,304	71,030	61,404	38,241
Salvage Volume Per Acre (MBF)	0.299	1.022	1.868	0.473
Total Salvageable Volume (MBF)	82,914	72,593	114,703	18,088
Proportion Accessible During Plan Period	.30	.17	.0	1/
Salvage Volume Accessible During Period (MBF)	24,874	12,341	None	

1/ Because of small log size and scattered volume, salvage in lodgepole pine types is not currently marketable. Approximately 20 percent of the total salvage volume in the lodgepole pine type will be accessible during the plan period. This volume (3.6 MMBF) will be included in the marginal potential yield in the lodgepole pine working group.

10.3 Definition of Terms Used in Plan

Area Control. Control of the annual or periodic harvest based on area rather than volume harvested.

ARVOL. Acronym referring to a computer program for calculating allowable cut using the AREa-VOLume check method.

Commercial Forest. Forest land which is producing or capable of producing crops of industrial wood which has not been reserved or deferred.

Cord. Unit of measure of stacked wood, approximately 90 cubic feet of roundwood.

Cover Type. Forest type now occupying the ground.

Cunit. Volume of measure containing 100 cubic feet.

Deferred. Land that has been administratively identified for study for possible addition to the wilderness system or other withdrawal from timber utilization under authority granted in the Federal Code of Regulations.

Even-Aged Management. Management applied to timber stands to produce small age differences between trees.

Habitat Type. An ecological classification of forest land based on probable climax tree species and understory vegetation.

Intermediate Cutting. Cutting in stands less than rotation age for control of composition, stocking, rate of growth, or condition.

Marginal Component. The component of the regulated, commercial forest land not qualifying as standard or special components primarily because of excessive development, cost, low product values, or resource protection constraints.

Multiple Use Plan. Land use plan based on zoning to coordinate the various National Forest land uses.

Non-Forest Land. Land that has never supported forests and lands formerly forested where use for timber utilization is precluded by development for other uses.

Overstory Removal. Harvest of overstory trees leaving adequate stocking of reproduction occurring in naturally established stands (as opposed to reproduction resulting from previous harvest).

Patch, Strip, Stand Cutting. Cutting which removes all merchantable trees except a few which may sometimes be left when needed to protect or enhance other forest values.

Potential Yield. See Section 2.0.

Productive Forest Land. Forest land which is producing or capable of producing crops of industrial wood.

Programed Harvest. See Section 3.0.

Regeneration Cutting. Any removal of trees intended to assist regeneration already present or to make regeneration possible.

Regulated. Commercial forest land organized for timber production under sustained-yield principles (does not include reserved or deferred productive forest land).

Removals. Cutting designed to remove overstory from advance reproduction resulting from previous harvest.

Reserved. Forest land withdrawn from timber utilization by statute, administrative regulation (Federal Code of Regulations), or by designation in land use plans approved by the Regional Forester.

Risk Cutting. Cutting in mature and overmature stands prescribed to reduce losses to insects and disease without regenerating a new stand.

Rotation. The number of years required for the tree of average basal area on an average site to reach a given diameter. The time period allowed to grow a tree crop from regeneration to harvest.

Salvage. Cutting done primarily to utilize scattered dead and down trees that will not be merchantable if left in the stand until the next scheduled cut.

Shelterwood - Seedtree. Cutting methods designed to provide a combination of seed and shade or light needed for regeneration.

Special Component. See Section 2.0.

Special Cutting. Cutting, usually in the special component, where uses other than timber production are overriding.

Standard Acre Equivalent. A hypothetical area used for potential yield calculation purposes only. It is the actual land area adjusted to reflect reduced yield because of multiple use constraints.

Standard Component. See Section 2.0.

Stocking. An indication of the number of trees in a stand as compared to the desirable number for best growth and management.

Timber Stand Improvement. See intermediate cutting.

Working Group. Those parts of a National Forest that have the same management prescriptions. Potential yields from different working groups are controlled separately.

Yarding Methods. Methods or process of conveying logs to a landing: Skyline yarding is a method in which a block or carriage rides on a skyline providing suspension. In highlead yarding, the logs are not suspended for the complete yarding cycle.